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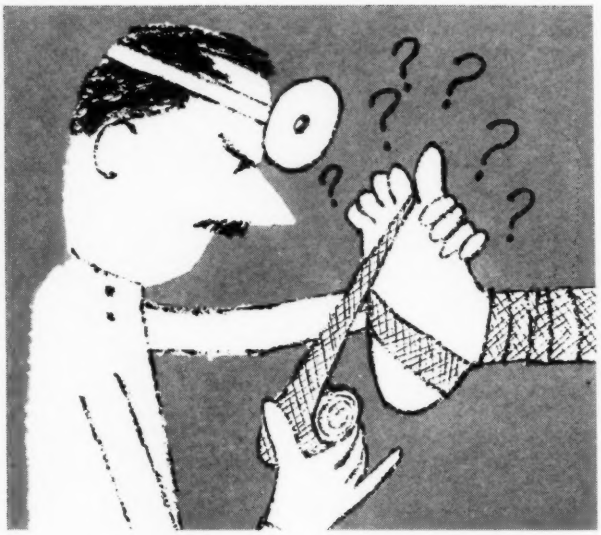
Hospital Topics

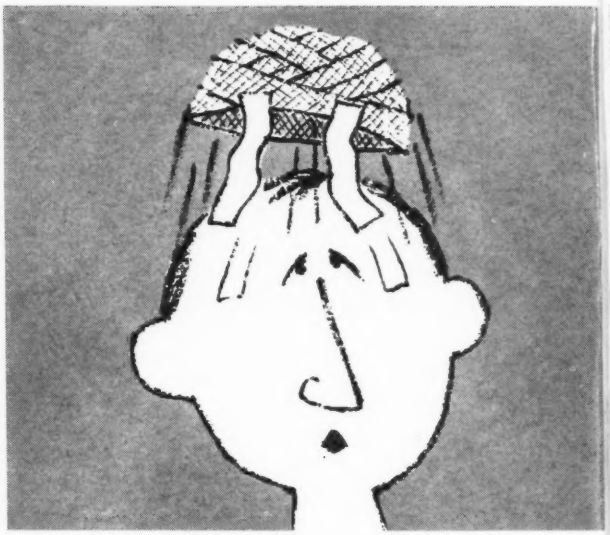
TODAY'S HOSPITAL PRACTICES

FEBRUARY 1961

HEALTH CARE OF THE AGED
PAGE 35

O. R. NURSE SYMPOSIUM
PAGE 87





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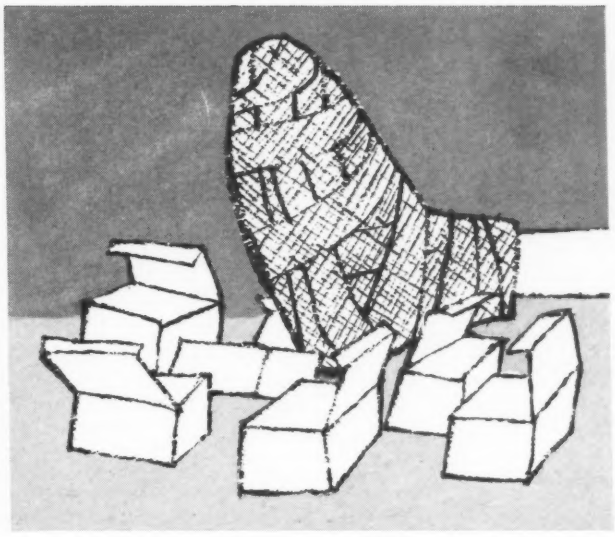

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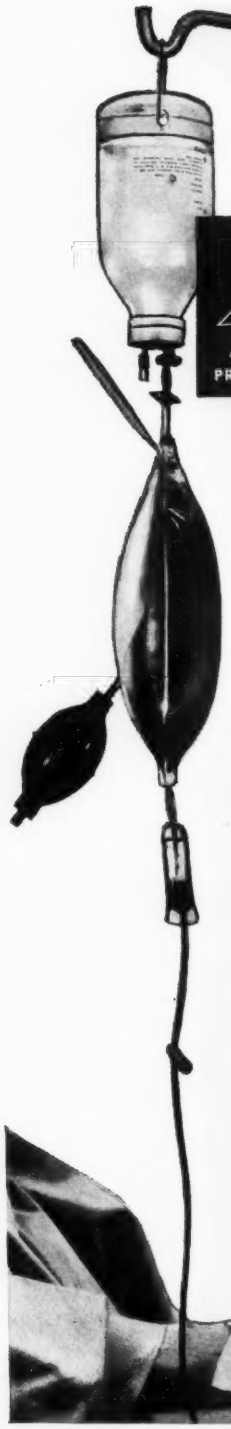

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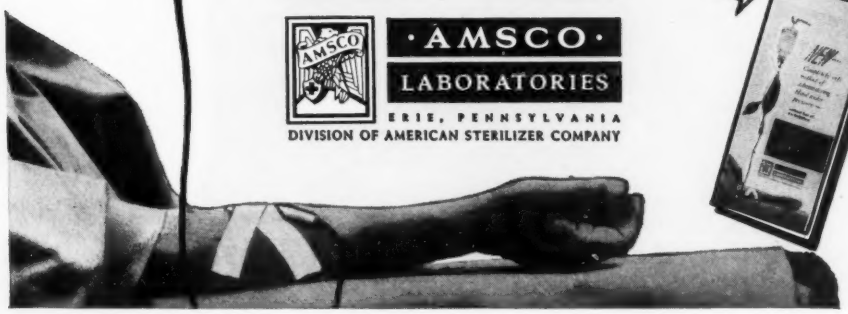

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HOSPITAL Topics

FEBRUARY, 1961, VOL. 39, NO. 2

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Pound for pound, new formula SUPER-EDISONITE

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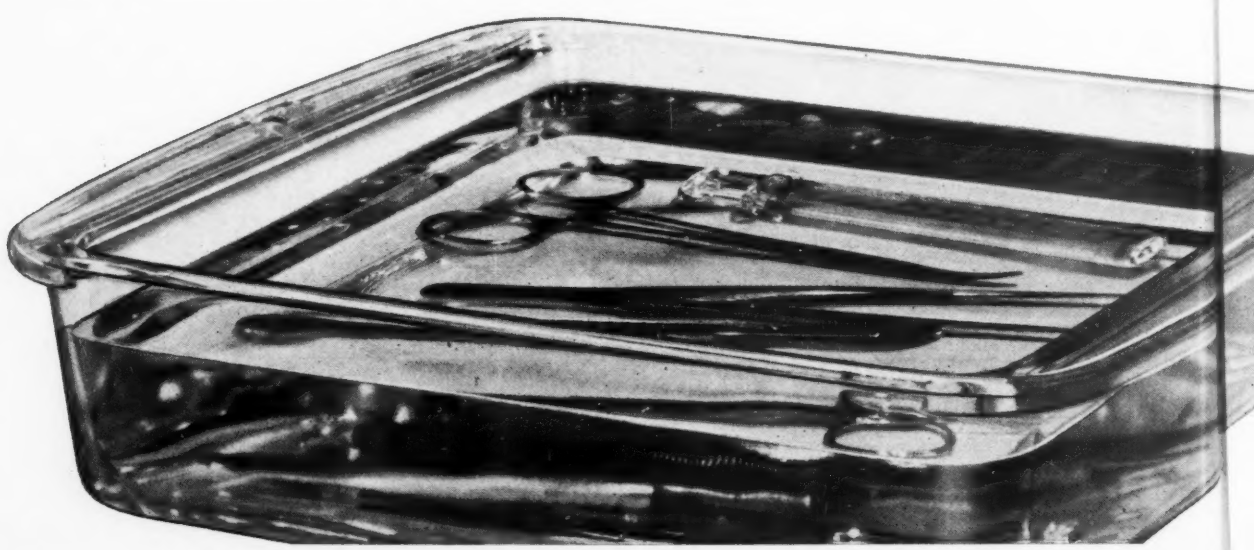

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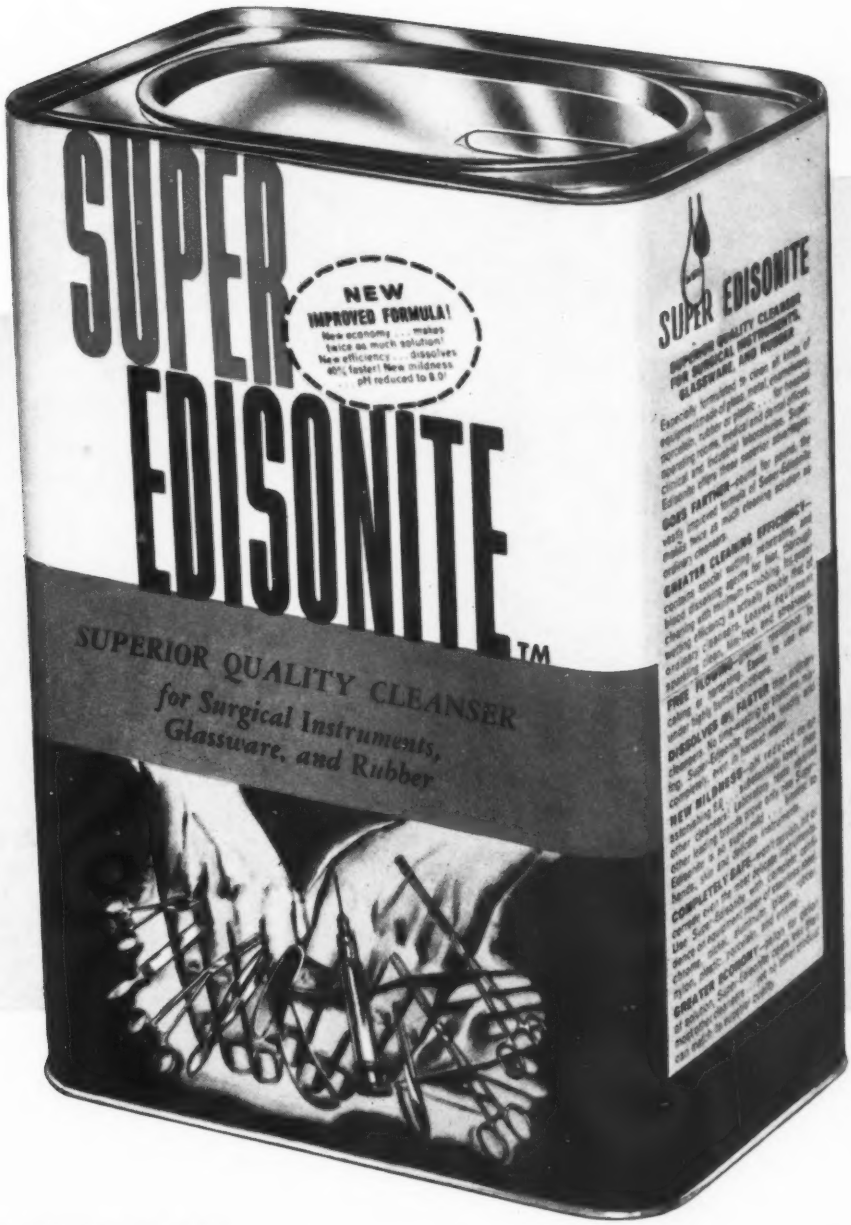

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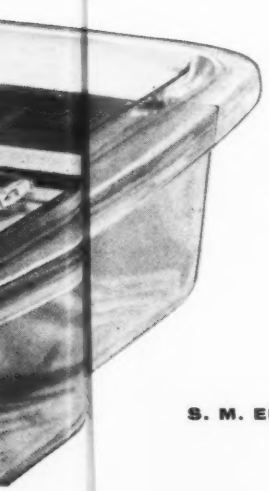

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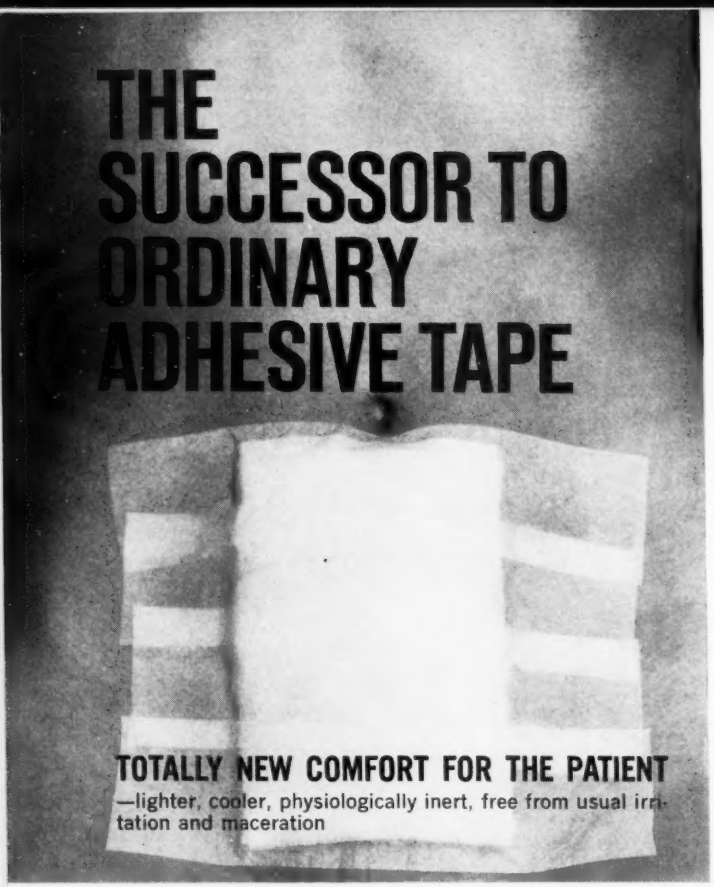

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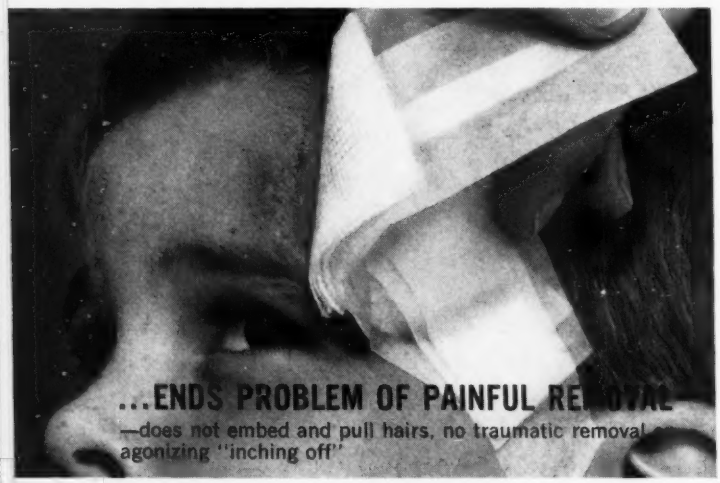

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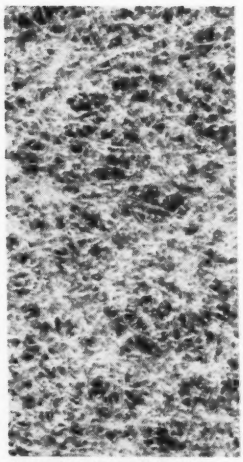

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ORDINARY PERFORATED TAPE

EXCLUSIVE CONSTRUCTION **LEFT:** Macrophotograph (20x) of "SCOTCH" Brand Surgical Tape shows totally microporous structure of both the nonwoven backing and the thin, non-reactive, non-mobile adhesive which permit unprecedented ventilation.

RIGHT: In contrast, thick "creeping" adhesive mass of conventional tape forms occlusive barrier, tends to plug widely spaced perforations, embeds and pulls hairs...contains irritating natural rubbers and resins.

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THIS MONTH IN HOSPITAL TOPICS

- Three intelligent and articulate men, sharing a deep concern about the problem of providing adequate health care for the aged, accepted an invitation from HOSPITAL TOPICS' consulting editor, John G. Steinle, to express their views in a symposium. The result: lively, stimulating reading, (p. 36).

- Since hospitals became aware of the need for relieving nurses of non-nursing duties, many of them have utilized a Public Health Service manual which outlines methods for observing nursing activities. The manual now has been supplemented by a filmograph (p. 55).

- Employee grievances—minor and major—are an inescapable part of every administrator's job. Whether the little complaints become big, or even whether or not many complaints arise, is often up to the administrator. Robley D. Stevens begins his discussion of employee grievances at the logical starting point — selecting and training of employees—and then gives some specific "do's and don'ts" for the administrator (p. 58).

- Change, complexity, conflict, and coordination—the hospital is a synthesis of these four key concepts, and achieves its ultimate purpose and meaning as an intermixture of them, says James S. Urda in the article awarded third prize in TOPICS' 1960 editorial competition (p. 50).

- Why does the Joint Commission on Accreditation stipulate that a circulating nurse should be an R.N., but that a scrub nurse may be a technician? Commission director Kenneth Babcock, M.D., answers that question —and operating-room supervisors tell how they feel about the use of technicians and what criteria they use in assigning personnel to scrub and circulate—in the symposium beginning on p. 87.

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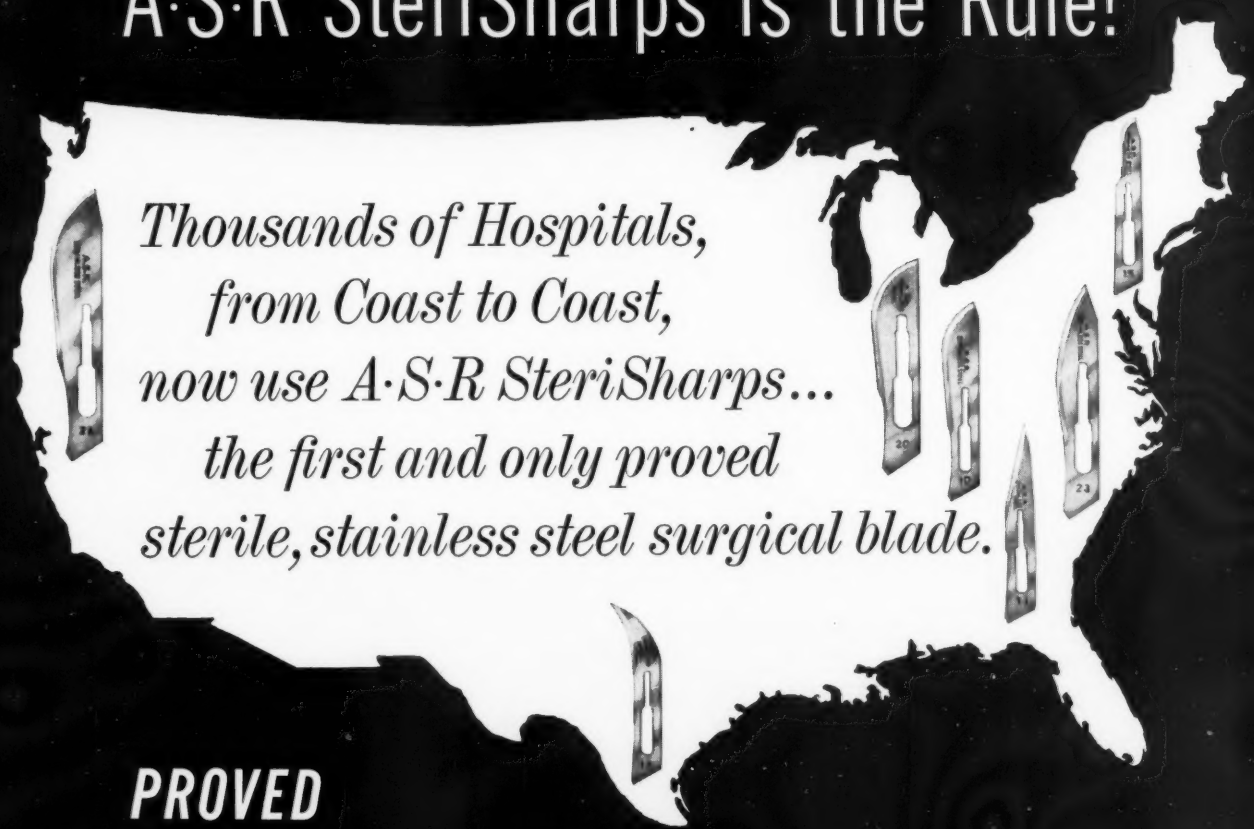

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now use A·S·R SteriSharps...
the first and only proved
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HOSPITAL Topics
The News Magazine for the Hospital Staff

FEBRUARY, 1961
VOL. 39, NO. 2

Scanning the News

Eyeballs Active as Subjects Dream in Color

Two research projects conducted at the University of Chicago have discovered that humans not only dream in sequence at about the same time several nights in a row, but actually dream in color.

One of the projects is being conducted by Joseph Kamiya, Ph.D., assistant professor of psychology, the other by a team headed by William Offenkrantz, M.D., associate professor of psychiatry.

The investigators have found that everyone has from three to seven dreams a night, although a person may remember only one or none at all. Dream recall drops sharply following the end of the dream. The deepest sleep of the night occurs right after "dropping off" and lasts for about 20 minutes. After about two hours sleep the first dream commences, and lasts about nine minutes. Subsequent dreams may last as long as 28 minutes.

A subject usually fidgets before a dream, but once the dream has started, the body relaxes, and the eyeballs become more active, as though the subject were watching a show.

Exercise Benefits Roosters, Why Not Hens?

Exercise benefits roosters in preventing hardening of the arteries, but it has no effect on hens. Why this happens is the current problem of Dr. Harry Y. C. Wong; of Howard University.

Dr. Wong and four laboratory colleagues working under a grant of the American Heart Association, experimented with the hens as they had previously done with roosters.

The hens were exercised twice a day for 12 weeks in a wire-cage treadmill. The purpose was to see whether exercise would reduce the effects of a high fat diet and lower the amount of cholesterol in the blood, as it had in the roosters.

According to Dr. Wong, the cholesterol-fed hens, unlike roosters, had a high incidence of aortic coronary atherosclerosis whether exercised or not.

A student nurse advisory committee played a vital role in the preparation of a new recruitment brochure for the Baylor University School of Nursing. "You'll Like Baylor . . . ", with student Sandy Craven as cover girl, brings satisfied smiles to faces of committee members (l. to r.) Nancy Templeton, Sandra Sears, Carl Archbold, and Lana Houghton. A fifth member of the committee, Edna Ogata, is not shown.

Eating Dirt Has No Benefits

Contrary to the old saying, children should be prevented from eating dirt, says Sydney S. Gellis, M.D., chairman of the department of pediatrics, Boston University school of medicine.

Dirt, one of the commonest substances eaten by children, could cause permanent damage to the liver. Other foreign substances commonly interesting to children gastronomically—plaster, paint, crayons—may also cause serious damage.

Dyes used in red and orange crayons, when eaten, can cause health problems. Paint and plaster containing lead paint may cause lead poisoning which can result in brain damage and permanent retardation in children under four years of age, according to Dr. Gellis.

"Tobacco Eye" a Highway Hazard

Nicotine-induced amblyopia, more commonly termed "tobacco eye," results in an unknown number of highway accidents each year. The

(*Continued on page* 127)

New Alvodine ethanesulfonate

trademark
Brand of piminodine ethanesulfonate

Analgesic potency as great as morphine without drowsiness or hypnosis*

Alvodine, a new and powerful narcotic analgesic, relieves pain as effectively as morphine, yet is much safer because it is free from the high incidence and severity of morphine's side effects. Alvodine is effective *orally* as well as parenterally. Alvodine causes almost no sedation, drowsiness or euphoria. Respiratory and circulatory depression are rare with customary doses; nausea and vomiting are uncommon. Constipation has not been reported.

Preferred agent for specific situations

Alvodine is especially well suited for *postoperative analgesia* because it permits most patients to remain alert and at the same time free from pain. The risk of postoperative pulmonary hypostasis and venous stagnation is decreased because the use of Alvodine allows patients to be mobilized sooner.

Alvodine is ideal for *ambulatory* and *semiambulatory patients* who are in need of strong analgesia. Patients with cancer remain alert and can often carry on their normal daily activities when freed of pain by *oral* doses of Alvodine.

Dosage: Orally, from 25 to 50 mg. every four to six hours as required. By subcutaneous or intramuscular injection, from 10 to 20 mg. every four hours as required.

How Supplied: Alvodine tablets, 50 mg., scored. Alvodine ampuls, 1 cc., containing 20 mg. per cc. *Narcotic Blank Required.*

Winthrop LABORATORIES
New York 18, N. Y.

Write for Alvodine brochure containing detailed information on clinical experience, addiction liability, side effects and precautions.

*In more than 90% of patients.

News Briefs at Press Time

TASK FORCE RECOMMENDS MEDICAL CARE FOR AGED UNDER SOCIAL SECURITY

A six-man task force headed by Wilbur J. Cohen has submitted a report urging a billion-dollar-a-year medical-care plan for the aged, paid for by special security taxes.

A second report recommended an additional $250 millon a year in federal aid to be used to step up education of doctors and nurses and to improve medical facilities.

Cohen, professor of public welfare administration at the University of Michigan and a former social security official, has been named assistant secretary of HEW in charge of Congressional liaison, and is expected to be a key figure in health legislation proposed during this session of Congress.

The Cohen report recommends that the initial $1 billion-a-year cost be met by increasing the social security tax one-quarter of one percent for both employer and employee. Report envisions an increase to eight-tenths of one percent for both employer and employee in 10 years, by which time total cost would run to about $2 billion a year.

Both Cohen and new HEW Secretary Ribicoff emphasized that study does not include any recomendations that social security money be paid for physicians' services. Report includes statements that none of its provisions would socialize medical care in any way; that free choice of physician, hospital and nursing home would be assured to every individual by law, and that there would be no supervision or control over the practice of medicine.

To hold down costs of hospital and nursing-home stays, task force recommends paying for outpatient hospital diagnostic services and visiting-nurse services.

Report calls for coverage of about 14.5 million persons instead of the 9.5 million who would have been covered under Kennedy-sponsored bill which Senate rejected last August. It recommends that social security beneficiaries be eligible for federal medical care at the age of 65 for men and 62 for women, as against the 68 and 65 years recommended in the Kennedy measure—and it would allow young widows with children, and orphans and permanently disabled persons, to receive benefits, regardless of age.

Secretary Ribicoff emphasized that President Kennedy is under no obligation to accept any part of the report—that it "will be given careful study along with all other proposals in the field."

EISENHOWER BUDGET INCLUDES RECORD PHS RECOMMENDATIONS

Record appropriations for health, medical and biomedical research functions were included in final budget submitted by President Eisenhower. Budget included a recommendation of $1,030,987,000 for PHS, of which $540 million is for National Institutes of Health. NIH research grants-in-aid in 1961-62 will total more than twice the cost of operating entire PHS in 1954.

Recommendation for Hill-Burton funds is $151.2 million—$35.2 million under 1960-61 amount—but Congress probably will make a big increase, as it has in recent years.

Of the $5.3 billion listed for VA, one-fifth is recommended for hospitalization and medical care and some $66 million for hospital construction.

NEW YORK GOVERNOR PROPOSES PLAN FOR UTILIZING KERR-MILLS FUNDS

Gov. Nelson Rockefeller of New York has proposed a $47.5 million program utilizing the Kerr-Mills law to provide additional medical assistance for the needy aged in the state.

Rockefeller's program calls for $47.5 million in federal money and a state contribution of $10.25 million. The federal funds, he said, would enable local governments in New York to reduce their contributions to existing medical assistance programs by $17.75 million.

Coverage would be limited to the medically indigent, with special allowances "contemplated for the benefit of those who have purchased private health insurance."

Of the 1.6 million persons over 65 in New York, about 170,000 could qualify for benefits under the proposed program, the governor said. This is 92,000 more than are now receiving public assistance on medical bills.

In his message to the legislature, Rockefeller reaffirmed his belief in the social security approach and suggested a social security program which he believes would work in with the recommended new state program.

He favors giving the beneficiary the choice of taking benefits under a schedule or taking a cash payment to cover the purchase of private health insurance providing at least equal benefits. The governor called this optional feature "essential to preserving the principle of individual choice . . . and to foster(ing) continued development of private health insurance plans for the elderly."

DR. L. L. TERRY APPOINTED NEW U.S. SURGEON GENERAL

Luther L. Terry, M.D., has been named surgeon general of U.S. PHS, succeeding Leroy E. Burney, M.D., who was not reappointed.

Dr. Terry, with PHS since 1942, has been prominent in research on enzyme-inhibiting drugs to combat high blood pressure.

Gordon M. Marshall

Calendar of Meetings

FEBRUARY

1- 2 American Hospital Association, Mid-year Conference of Presidents and Secretaries, AHA Headquarters, Chicago

2- 4 American College of Hospital Administrators, Fourth Annual Congress on Administration, Morrison Hotel, Chicago

4- 7 American Medical Association, Congress on Medical Education and Licensure, Palmer House, Chicago

6- 8 American Academy of Allergy, Statler-Hilton Hotel, Washington, D.C.

8-10 AHA Institute, Community Relations for Hospital Auxiliaries, AHA Headquarters, Chicago

8-10 American Academy of Occupational Medicine, Statler Hotel, Detroit

8-10 Illinois Congress for Maternal and Infant Health, St. Nicholas Hotel, Springfield, Ill.

8-11 American College of Radiology, Drake Hotel, Chicago

9-11 Society of University Surgeons, University of Kansas Medical School, Kansas City

13-15 Association of Operating Room Nurses, Civic Auditorium, San Francisco, Calif.

13-17 AHA Institute, Dietary Department Administration, Biltmore Hotel, Oklahoma City

14-17 American Nurses' Association, Section Regional Conference, Hotel New Yorker, New York City

16-18 Central Surgical Association, Park Plaza Hotel, St. Louis

23-25 Louisiana Hospital Association, Captain Shreve Hotel, Shreveport

23-25 American Academy of Forensic Sciences, Drake Hotel, Chicago

27-Mar. 1 AHA Institute, Management Development, AHA Headquarters, Chicago

27-Mar. 3 AHA Institute, Nursing Service Administration, Rice Hotel, Houston, Tex.

28-Mar. 3 American Nurses' Association, Sectional Meeting, Memorial Coliseum, Portland, Oregon

MARCH

3-16 National Health Council, National Health Forum, Waldorf-Astoria Hotel, New York City

5- 8 American Nurses' Association, Section Regional Conference, Hotel Denver-Hilton, Denver, Colo.

6- 8 AHA Institute, Hospital Law, Commodore Perry Hotel, Austin, Tex.

6- 9 American College of Surgeons, Sectional Meeting for Surgeons and Nurses, Hotels Bellevue-Stratford, Ben Franklin, and Sylvania, Philadelphia

6-10 AHA Institute, Hospital Purchasing, Penn-Sheraton Hotel, Pittsburgh

8-11 Neurosurgical Society of America, Boca Raton, Fla.

12-17 American College of Allergists, Statler Hilton Hotel, Dallas, Tex.

14-16 National Health Council, Waldorf-Astoria Hotel, New York City

15-18 American Nurses' Association, Section Regional Conference, Hotel Chase-Park Plaza, St. Louis, Mo.

16 Wisconsin Hospital Association, Schroeder Hotel, Milwaukee

20-22 AHA Institute, Personnel Administration (Basic), AHA Headquarters, Chicago

20-22 New England Hospital Assembly, Hotel Statler, Boston

20-23 AHA Institute, Obstetrical Nursing Administration, Statler Hilton Hotel, Los Angeles

24 Public Affairs Committee, New York City

(Continued on page 14)

New Technic in Surgical Asepsis...

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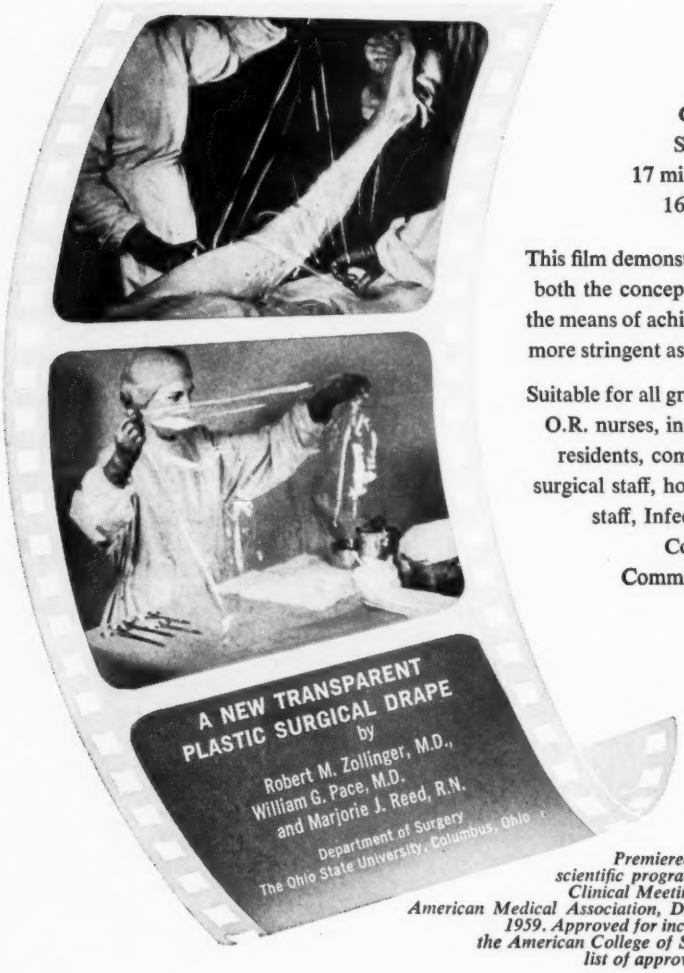

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CALENDAR OF MEETINGS

(*Continued from page* 12)

20-24 American Surgical Association, Boca Raton Hotel, Boca Raton, Fla.

21-23 Kentucky Hospital Association, Phoenix Hotel, Lexington

23-24 Georgia Hospital Association, Biltmore Hotel, Atlanta

23-25 American Orthopsychiatric Association, Statler Hilton Hotel, New York City

27-29 AHA Institute, Methods Improvement (Advanced), AHA Hdqtr's, Chicago

APRIL

4- 7 Ohio Hospital Association, Veterans Memorial Building, Columbus

5- 7 AHA Institute, Capital Financing of Hospitals, AHA Headquarters, Chicago

6- 8 American College of Surgeons, Sectional Meeting, Fort Garry Hotel, Winnipeg, Manitoba, Canada

9-13 International Anesthesia Research Society, Houston, Texas

10-12 American Academy of Pediatrics, Spring Meeting, Sheraton Park Hotel, Washington, D.C.

10-13 Southwestern Surgical Congress, St. Louis, Mo.

10-14 American Society for Experimental Pathology, Atlantic City

10-14 American Physiological Society, Atlantic City

10-14 American Society of Biological Chemists, Atlantic City

10-14 National League for Nursing, Cleveland

11-13 Industrial Medical Association, Biltmore Hotel, Los Angeles

12-14 AHA Institute, Labor Relations, AHA Headquarters, Chicago

13-14 Carolinas-Virginias Hospital Conference, Roanoke Hotel, Roanoke, Va.

13-15 American Association of Railway Surgeons, Drake Hotel, Chicago

13-20 American Academy of General Practice, Miami Beach, Fla.

17-18 AHA Institute, Credits and Collections, Sheraton-Cadillac Hotel, Detroit

19-21 AHA Institute, Hospital Librarianship, AHA Headquarters, Chicago

19-21 Southeastern Hospital Conference, Municipal Auditorium, Memphis, Tenn.

19-21 Quebec Hospital Association, Queen Elizabeth Hotel, Montreal

21-28 American College of Obstetricians and Gynecologists, The Americana Hotel, Bal Harbour, Miami Beach, Fla.

24-26 International Academy of Pathology, Chicago

23-27 Society of American Bacteriologists, Morrison Hotel, Chicago

23-28 American Pharmaceutical Association, Hotel Sherman, Chicago

23-28 American Society of Hospital Pharmacists, Hotel Sherman, Chicago

24-26 American Association for Thoracic Surgery, Sheraton Hotel, Philadelphia

24-27 AHA Institute, Nursing Inservice Programs, Sheraton-Atlantic Hotel, New York City

24-27 Association of Western Hospitals, Civic Auditorium, San Francisco

24-28 Medical Record Librarians, Principles of Medical Record Management (Advanced), AHA Headquarters, Chicago

24-28 National Association for Practical Nurse Education and Service, Statler Hilton Hotel, Detroit

25-28 AHA Institute, Hospital Engineering, Adolphus Hotel, Dallas, Tex.

26-27 Iowa Hospital Association, Fort Des Moines Hotel, Des Moines

26-28 American Association of Pathologists and Bacteriologists, Chicago

26-28 Mid-West Hospital Association, Municipal Auditorium, Kansas City, Mo.

(*Continued on page* 16)

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For further information see postcard opposite page 150.

CALENDAR OF MEETINGS

(*Continued from page 14*)

26-29 American College Health Association, Detroit

27-29 American Academy of Neurology, Sheraton-Cadillac Hotel, Detroit

29-30 American Psychosomatic Society, Chalfonte-Haddon Hall, Atlantic City

30 American Federation for Clinical Research, Haddon Hall, Atlantic City

MAY

1- 3 Tri-State Hospital Assembly, Palmer House, Chicago

2- 3 Association of American Physicians, Chalfonte-Haddon Hall, Atlantic City

2- 3 American Pediatric Society, Hotel Traymore, Atlantic City

2- 6 American Association on Mental Deficiency, Netherland-Hilton Hotel, Cincinnati

3- 7 Student American Medical Association, Chicago

4- 5 Society for Pediatric Research, Traymore Hotel, Atlantic City

5- 6 Society of Neurological Surgeons, Boston

5- 7 American Society of Internal Medicine, Eden Roc Hotel, Miami Beach, Fla.

5- 8 American Psychoanalytic Association, Palmer House, Chicago

11 Massachusetts Hospital Assembly, Statler Hotel, Boston

7-12 Medical Library Association, Olympic Hotel, Seattle

8-12 American Psychiatric Association, Morrison Hotel, Chicago

8-12 American College of Physicians, Americana Hotel, Miami Beach.

10-12 Upper Midwest Hospital Conference, St. Paul Auditorium, St. Paul, Minn.

11-13 American Radium Society, Broadmoor Hotel, Colorado Springs

14-18 International College of Surgeons, North American Federation, Chicago

14-18 Texas Hospital Association, Memorial Auditorium, Dallas

16-20 American College of Cardiology, Biltmore Hotel, New York City

17-19 Hospital Association of New York State, Atlantic City, N.J.

17-19 New Mexico Hospital Association, Western Skies Hotel, Albuquerque

17-19 Middle Atlantic Hospital Assembly, Convention Hall, Atlantic City

17-19 American Association of Plastic Surgeons, Commodore Hotel, New York City

21-22 American Laryngological Association, Lake Placid Club, Lake Placid, N.Y.

22-24 American Thoracic Society, Netherland-Hilton Hotel, Cincinnati

22-25 American Orthopaedic Association, The Ahwahnee, Yosemite, Calif.

22-25 American Urological Association, Biltmore Hotel, Los Angeles

23-25 American Laryngological, Rhinological and Otological Society, Lake Placid, N. Y.

25-27 American Gastroenterological Society, Drake Hotel, Chicago

26-27 American Otological Society, Inc., Lake Placid Club, Lake Placid, N.Y.

26-27 Tennessee Hospital Association, Riverside Hotel, Gatlinburg

29-31 American Gynecological Society, The Broadmoor, Colorado Springs

29-31 Arkansas Hospital Association, Arlington Hotel, Hot Springs

JUNE

3-15 International Medical-Surgical Meetings, Turin, Italy

12-15 Catholic Hospital Association, Civic Center Auditorium, Detroit

26-30 American Medical Association, Annual Meeting, New York City

MISS PHOEBE

NO. 39 IN A SERIES

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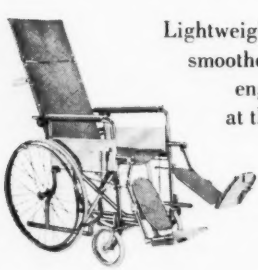

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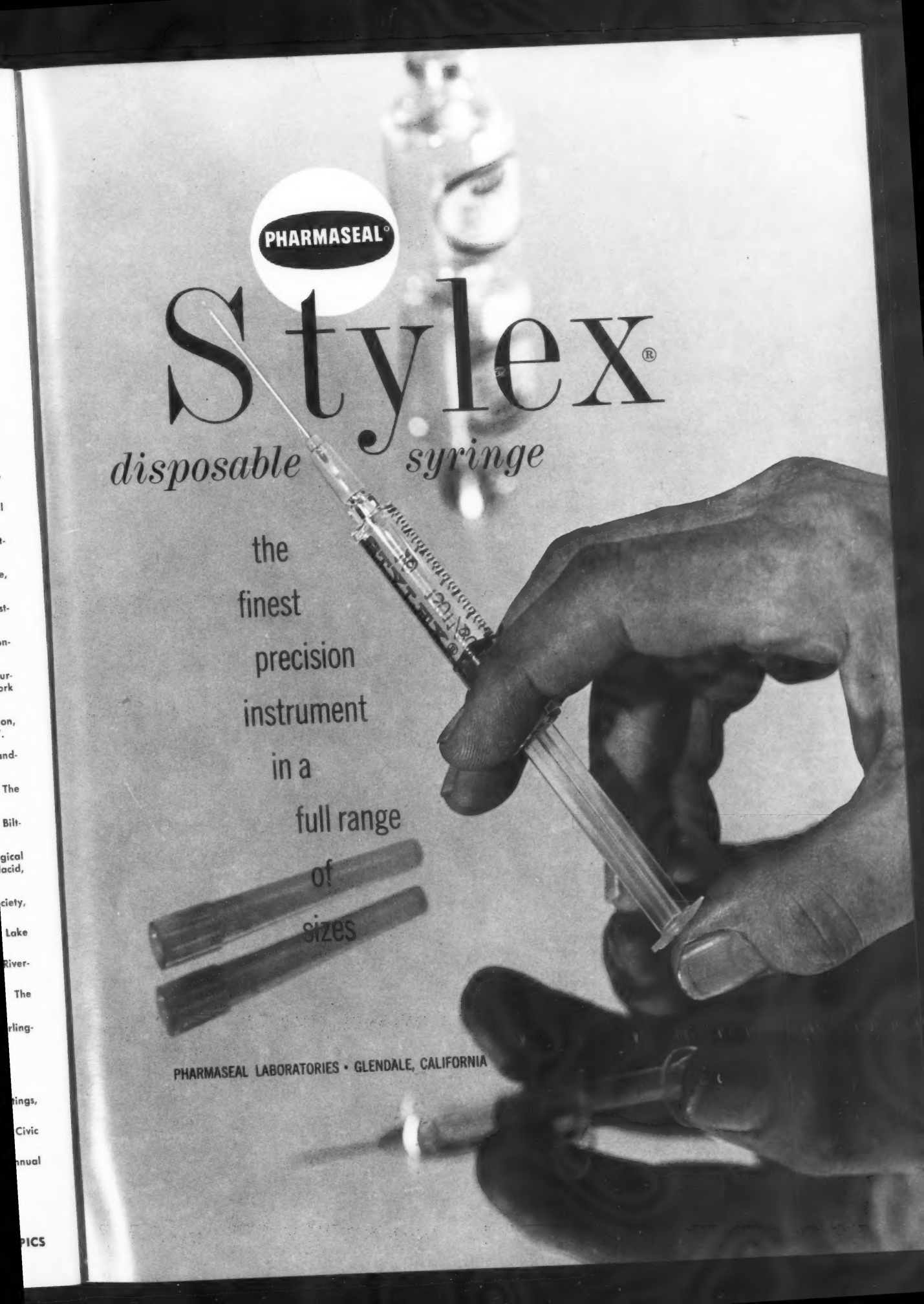
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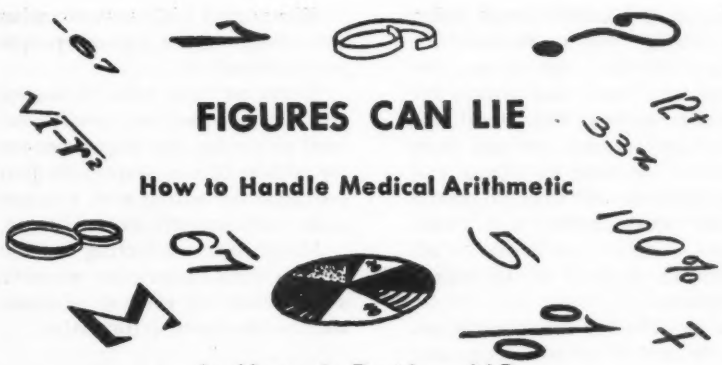


FIGURES CAN LIE

How to Handle Medical Arithmetic

by Henry A. Davidson, M.D.

Condensed from Henry A. Davidson — GUIDE TO MEDICAL WRITING; (copyright 1957 The Ronald Press Co.) as printed in Northwest Medicine, *August 1960.*

Across every editor's desk come, every day, papers which purport to show that a new hermaphroditic musk-buffered gibberine will wonderfully improve cases of erythema prunellensis. The paper offers a table which looks like this:

	Excellent Results	*Good Results*	*Poor Results*	*Total Cases*
Erythema	30	17	4	51
Dandruff	14	13	12	39
Athlete's foot	12	6	0	18

Apart from defining good or poor, there is the statistical problem: could chance account for these results? Would a random sampling of all last summer's cases of athlete's foot show about 66 percent "excellent" results anyway? Or, if it showed, say, 59 percent, would that percentage be meaningfully different from the 66 per cent? In statistics, you may be booby-trapped by some common fallacies.

The Fallacy of the Normless Base

Suppose 1,000 men drove cars on the Monotone Turnpike last New Year's Eve, and 48 were involved in accidents. The turnpike surgeon examined these 48 drivers and found that 36 of them had been drinking, could you assume that men who drink are three times as likely to have an accident?

This is the fallacy of the normless base. The norm is the total number of drinking drivers, and *their* accident ratio, compared with the total of non-drinking drivers and their ratio. Suppose all 1,000 were tested and it appeared that 800 had been drinking and 200 had not. Then: 36/800 or 4½ percent of the drinkers were in accidents; 12/200 or 6 percent of the non-drinkers were in accidents.

Moral: don't calculate any percentages until you are sure that your base (100 percent) means what you want it to mean.

The Fallacy of the Mixed Population

Yoo-yoo fever attacks males and females in the same proportion, but females are far more vulnerable; 50 percent of them die, whereas the death rate among males is only 20 percent. Since the number of cases is about the same, the over-all death rate is, of course, 35 percent (20 plus 50, divided by 2).

You have developed a new method of treating Yoo-yoo fever, but the only place you have access to is the local VA hospital. They have 10 patients suffering from this ailment. You try your method, and only two die. Thus the mortality rate of your method is only 20 percent, compared to the standard rate of 35 percent.

But wait; this hospital has male patients only. Among males, the death rate is 20 percent anyway. You have made the blunder of comparing an all-male sample with a mixed-sex base.

Moral: before you leap to conclusions, make sure your sample is not substantially different in composition from the group on which the norms were based.

Fallacy of the Unrepresentative Average

The special feature of Yates-Dixon disease is that, if the patient has the antibodies in his blood, he'll throw off the illness in two or three days. If his antibody titer is low, however, he'll need eight or 10 days to build up his reserve. And with the general population, the distribution of antibodies is 50-50. So, about half the patients stay in the hospital 2-3 days; half stay 8-10 days.

You have studied hospital records on the last 100 cases of Yates-Dixon disease to appraise length of hospital stay. Here is what you find:

23 stayed for 2 days (total: 50 patient-days);
25 stayed for 3 days (total: 75 patient-days);
25 stayed for 9 days (total: 225 patient days);
25 stayed for 10 days (total: 250 patient days).

(Continued on next page)

The March of Time Is Relentless

From the Arizona Hospital Association's Pertinencies comes an item about a brittle yellowing pamphlet, printed in 1847, and now resting in the archives of the Sussex County Medical Society. The pamphlet lists the typical minimum fees agreed upon by practicing physicians of the times in that part of New Jersey. It reads in part:

Midwifery: $3. Extirpation of tonsils: $3. Extraction of tooth: 25c. Removal of cataract: $20. Setting of broken arm or leg: $3. Prescriptions: 25c Amputation at hip or shoulder: $50.

This last $50 fee is the highest listed in the pamphlet.

You see that 100 patients stayed a total of 600 patient-days. Thus the average is six days.

Now suppose the patient's wife asked you how long her husband would be hospitalized. If you say, "The average stay is six days," you would be accurate, but wrong. If not one single patient is going to stay six days (or five or seven days, for that matter) this six-day figure is hopelessly unrepresentative. The only honest answer is: He has a 50-50 chance of being out of the hospital in three days; if he isn't, he'll probably have to stay nine or 10 days.

Moral: because a certain figure works out as an exact average, don't assume that it truly represents the sample. If most of the figures deviate widely from the average, measure your sample in fourths or halves. That is, say that more than half, or fewer than half, fall within such a range; or that three-quarters (or two-thirds) of the cases fall above or below a certain figure.

Fallacy of the Immovable Total

You are the plant doctor at the Gadget Re-boring Co. One February you get a report on the causes of absenteeism; percentage-wise, they shape up like this:

Accidents	55%
Alcoholism	10%
Colds	30%
Other causes	5%
	100%

Next fall, you review the absenteeism record for August and find that practically no one misses time because of colds; actually, the figures are:

Accidents	75%
Alcoholism	13%
Colds	5%
Other causes	7%
	100%

You take one look and call for the safety engineer. Accidents have jumped from 55 to 75 percent. Something is wrong.

Something is wrong — not with accident prevention, but with your statistical technic. Since you reduced the incidence of colds, you simply had to increase the figures for the other causes, because your total was always 100 percent. With a fixed total like this, any increase in one item means a decrease in others, and vice versa. In this kind of presentation you should use either actual numbers, or ratios to *all* employees instead of to absent employees.

Moral: the fact that percentages rise or fall does not necessarily mean that actual incidence rises or falls. Make sure you have not been operating on an immovable base. If your base is fixed, then the dimunition of any item leaves a vacuum into which the others must flow.

Fallacy of the Wrong-Way Addition

You have surveyed the incidence of myopia in Yokum Valley:

	With Myopia	*Without Myopia*	*Total Persons*
Children:	3,000	97,000	100,000
Adults:	52,000	48,000	100,000
	55,000	145,000	200,000

Now rearrange this in percentages. You can make 100 percent equal all children (horizontal addition). Or you can make 100 percent equal all myopics (vertical addition). Take the horizontal addition first:

	With Myopia	*Without Myopia*	*Total*
Children:	3%	97%	100%
Adults:	52%	48%	100%

The rows add up to 100 percent horizontally. A verticle addition of the percentages above would be meaningless. Now reorganize the data to give percentages that add vertically, and notice how the table changes.

	Myopics	*Non-myopics*
Children:	5%	67%
Adults:	95%	33%
	100%	100%

The first table answers the questions: what percentage of children are near-sighted? What percentage of adults are near-sighted?

The second table answers: what percentage of near-sighted people are children?

If you set your table to answer the wrong question, you'll succeed in getting the wrong answer. By adding figures (especially percentages) the wrong way, you can make numbers tell serious lies.

Moral: before selecting the 100 percent total, determine whether a horizontal or vertical addition will be the more informative.

The Fallacy of the Skinny Sample

Consider Dr. X who recently reported that, in his experience, almost 70 percent of patients with Garnicht's syndrome have low blood calcium. His experience? Three patients, two with low blood calcium. That makes 67 percent.

This is not honest. Before you draw conclusions intended to be *generally* applicable, you have to have enough cases to dilute the possibility of chance.

Moral: a sound observation is worth reporting no matter how few cases you have. The individual case report is, indeed, the basic building-block of medical knowledge. But don't draw general conclusions and don't see trends unless a statistician tells you that you have enough cases to justify such conclusions.

The Post Hoc Fallacy

The revolving door of a department store struck a woman on the breast. Only the rubber snubber hit her, so it was a gentle, well-cushioned blow. But she worried, her breast was examined, and her doctor found a lump. At biopsy, it proved to be malignant.

She sued the department store, alleging that the single blow of the rubber snubber caused the carcinoma. Her family physician testified that he did not, in general, know the cause of cancer. "But," he said, "this woman had nothing wrong with her breast before the trauma."

Despite the testimony for the store of several distinguished pathologists, dermatologists, and gynecologists that this was coinci-

dence, the jury and judge believed the family M.D. and ignored the professors. To these non-medical personnel, the logic seemed inescapable – she never had the tumor before the injury. She had it now. No one knows the cause, therefore no one can swear that the trauma is *not* the cause.

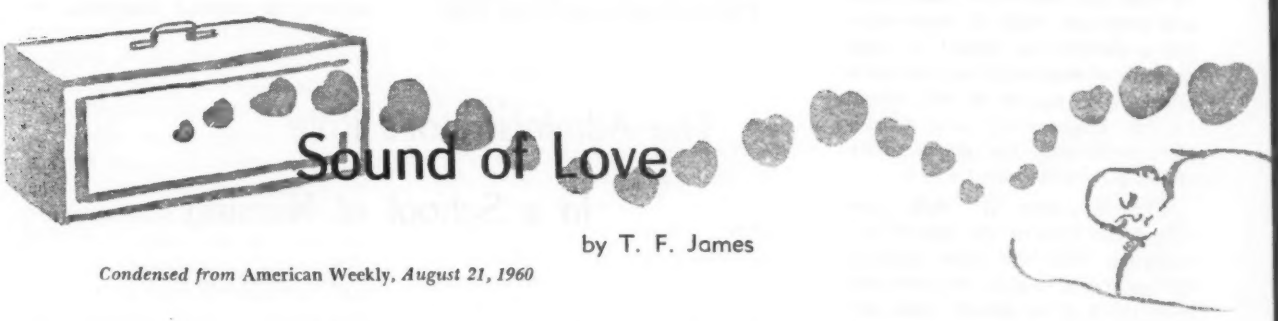
This is the *post hoc* fallacy. The blunder is in logic rather than arithmetic, but it is common, and it delineates the frontier beyond which the statistician cannot go. The statistician can show that when one event occurs, the other *follows*. But the clinician must decide whether this is only a *post hoc*, or whether it is also a *proper hoc*.

This is one of the vexing problems of medical statistics: the point at which a mere sequence becomes a presumed cause-and-effect relationship. If your sampling is small and your theory novel, you cannot assume that a sequence means a cause-and-effect operation.

Closely related is the problem of spurious correlation. During the past decade many things have become more numerous, among them TV sets and psychotic patients. Suppose you drew a graph, putting the years along the bottom and a number of items along the left side. Then you mark in the curve of each of these items.

If you chose the scale properly, you would get a number of similar curves. Conceivably, the number of TV sets sold might exactly parallel the curve reflecting the number of certified patients in mental hospitals. Would this mean there was a cause-and-effect relationship? No; it would simply mean that there are more people now, hence more psychotics and more TV sets.

Moral: If a correlation seems mathematically exact, use a little common sense before you buy it. Maybe both determinants were products of a common cause.



Sound of Love

by T. F. James

Condensed from American Weekly, *August 21, 1960*

Suppose a man came to your door and said, "I have created a machine which will help a newborn baby sleep soundly, gain weight, and practically stop crying. There is also strong scientific evidence that it will give the infant a better than average chance to grow into a mentally healthy adult. There are indications that this machine also will work well with older children who have difficulty going to sleep at night and with adult insomniacs too."

You would probably tell him to go back to his science fiction. But such a machine actually does exist and will be available to the American public shortly.

The name of the machine is Securitone.* Its creator is Dr. Lee Salk of New York City, psychologist brother of Dr. Jonas Salk.

The Securitone machine is a device which reproduces with precise exactitude the "normal" rhythm of the human heart. It would recreate for newborns in their first days of life the deep-rooted biological security they felt in the womb. For older children, the machine would evoke unconscious memory of this security, and thus calm fears.

For 16 weeks Dr. Salk used the Securitone in the nursery of Elmhurst General Hospital, New York City. Weeks 1-4 and 9-12 were the experimental phase, during which the heartbeat sound was present. Weeks 5-8 and 12-16 were the control phase, when the machine was not used.

The staff of the nursery and its procedure remained essentially unchanged throughout the 16 weeks. Two experimental phases and two control phases ruled out the possibility that results might be affected by temperature differences, virus infections, or other nursery episodes.

The early separation of mother and child apparently weakens the emotional structure of the child, and makes him many times more prone to nervous disorders and mental breakdowns as well as those anti-social actions we call crime. The weakness, according to research, is particularly evident in the ability to respond to love.

Birth is a deeply disturbing experience to the organism of the infant. Cast from the womb, where all was secure, and cold and hunger and frightening noises were unknown, the tiny being is catapulted into a world he cannot understand.

In this bewildering experience, the one familiar thing which can comfort the infant is his mother's body.

A total of 102 babies in the experimental groups heard the sound; 110 in the other groups did not. Among the experimental group, 69.6 percent gained weight. Among those in the control group, only 33 percent gained.

But this is only one change noted in the "heartbeat" babies. There was also much less crying

(*Continued on next page*)

*Securitone is the trademark of Securitone Corp. of America.

when the rhythmic sound filled the nursery.

Many medical experts regard the experiment as indicating that the child who has a Securitone machine in his nursery should be far less prone to mental breakdowns as an adult. This is based on two principles of modern psychology:

1. The first weeks after birth have a crucial, even a decisive role in determining the future personality structure of the individual.

2. A major cause of mental illness in adult life is maternal deprivation.

But the conditions of modern life and the routine of most modern hospitals make it impossible for a mother to spend a large amount of time with her newborn child. The infant is left alone in his frightening new world, blindly longing for the security of his mother's body.

This is where Dr. Salk conceived the idea of the Securitone machine. For the nine months the baby was within his mother's body the one persistent sensation, felt day and night, was the mother's heartbeat. Nothing else could compare to the deep biological familiarity of this rhythm.

Dr. Salk took over 18 months to complete the machine. A company, Securitone of America, has been formed to produce it. "Many people raise their eyebrows at a scientist being connected with a business," Dr. Salk says, "but I do not want this machine mishandled in its production or distribution. I want to make sure it meets the maximum scientific requirements and that no claims for it will be made that are not based on scientific proof."

Further experiments with older children are in initial stages. Dr. Salk is hopeful that normal children with routine sleeping problems will go to sleep faster and remain asleep when the Securitone machine is in their room. He also hopes that children with more unusual problems will respond equally well.

The machine could not become a substitute for the mother, Dr. Salk emphatically insists. "It is a supplement . . . as the child grows older and becomes able to recognize his mother . . . the power of the Securitone machine would inevitably grow less."

Is it possible that the baby will become addicted to the machine? Again Dr. Salk says no. "In the normal situation the mother's love soon removes the necessity for the biological reassurance of the heartbeat." If the child did become addicted, it would be evidence that there was something radically wrong in his relationship with his mother, and he would be "better off with the Securitone . . . than without it."

The machine's tone is not loud. Placed next to the crib, it can be heard only faintly on the other side of the room. Actually, it masks other noises; children will sleep more soundly to its beat.

The beat is a little like primitive drum music. But it has none of the excitement and frenzy we associate with the drum. Nurses and doctors in the Elmhurst nursery found it was very relaxing.

Dr. Salk's discovery opens vistas in many directions. For the first time psychologists will be able to better understand why rhythm is so important to men and women. Perhaps with rhythm as a base, psychiatrists can work out new methods of treatment for patients in mental hospitals.

The Administrator's Role in a School of Nursing

by Robert C. Millar

Condensed from Nursing Outlook, *September 1960*

The hospital administrator's role in nursing education is exactly what each individual administrator makes it. Some spend a great deal of time on the schools connected with their hospitals. This may be because they like education, or are interested in good nursing care, or are attracted to young ladies.

Others never liked school and are not overjoyed at being responsible for one. They are apt to stick to budgetary matters and to complain about the number of stamps the faculty uses writing to prospective students.

Unless the administrator is able and willing to give the time necessary to absorb all aspects of the school – philosophy, curriculum, selection of applicants, faculty, student morale, facilities, and standards – he will be in a poor position to interpret his school and its needs to the governing board; he will have a weak foundation on which to take a public stand on matters affecting the community's nursing education programs.

The administrator who wants to maintain a diploma school needs open and active lines of communication between himself and the school. He should have frequent conferences with the director; he should receive written materials on the plans of the school. He should make an effort to attend major faculty meetings and discussions of subjects which have a large bearing on the school's future and costs.

The administrator must also support a good standard of care in the clinical areas of the hospital. A good school can be the main source of a good nursing service, if the nursing service measures up to its share in the educational process. If the administrator under-budgets nursing service, he may be under-

Mr. Millar is administrator, Presbyterian Hospital, Philadelphia.

mining the school, whether he means to or not.

Another major responsibility of the administrator is finding and keeping a director with the training and ability to keep a school in gear and a good educational program going.

No administrator can talk long about maintaining a diploma school without getting into the subject of NLN accreditation and state board of nursing approval. A few years ago, there seemed to be almost a "shooting war" between a large group of administrators and the League. Today, although it is an uneasy peace, the antagonists are trying harder to understand each other. On one side, the League has come to a greater understanding of the financial fix of many hospitals.

The way hospital costs are rising, administrators are going to be under more pressure than ever to cut costs in the near future. This puts our schools in a tight squeeze. The schools look like juicy plums to the cost-cutters; at the same time, those devoted to raising standards feel the schools need considerable costly sprucing up. The net result is going to be fewer nurses at a time when the need is greater.

In this situation, a few things seem obvious: hospitals with diploma schools are supplying most of the registered nurses for hospitals without schools, for industry, nursing homes, the armed forces — none of which have paid to help with their education.

I wouldn't feel quite so concerned if our educational efforts were only meeting more adequately our own hospitals' needs for staff. And then what about faculty? Is there a school that has no problem recruiting and keeping good faculty?

Too, the current drive of unions to organize the nonprofessional hospital workers may also sharpen up the axe for diploma schools, since many hospitals are faced with huge increases in the outlay for nonprofessional personnel and our schools are going to feel the pinch.

The reason that our schools are involved is that matter of costs. If I were to pick the one thing the administrator has to be able to do above all others to maintain a diploma school and a good hospital to match, I'd pick the ability to find the required funds.

Finally, combined efforts are helpful: I have seen administrators provide the leadership for group action which led their hospitals out of the wilderness of deficits, into the promised land of adequate financing.

THE RACKET IN COUNTERFEIT DRUGS

by Jack Anderson

Condensed from Parade, *October 23, 1960 and January 15, 1961*

A flourishing racket of under-the-counter trade in fake and diluted drugs, stamped with the counterfeit trademarks of reputable firms, is spreading throughout America. Conservative estimate puts the annual turnover at $50 million, but it is probably nearer three times that amount.

New "wonder drugs" barely reach the market before they are pirated by the pill-fakers and their bathtub chemists. A spurious Salk vacine, for instance, appeared on the black market while anxious parents were rushing to buy the first shots for their children. These injected with this bogus serum were not only left unprotected, but may actually have been given polio. One batch is believed to have contained live virus.

The drug-fakers' wares are known — with grim humor — as "zombies." Most zombie-makers are small manufacturers who use their legitimate businesses as a cover for pirating big-name drugs, or are fly-by-night, hole-in-the-wall operators whose premises are often so filthy that their drugs are contaminated. The main bootleg sources are New Jersey in the east, California in the west.

To avoid the risk of being arrested for mail fraud, the zombie merchants ship their consignments by air freight or railway express under such labels as "water softener," "jewelry," and "machine tools." Often the only leads to the manufacturers are the peddlers — itinerant gyps who are hard to snare. One man and a car can transport a fortune in zombies.

The phony pill peddlers sell their wares to thousands of drug stores, hospitals, and mail-order houses whose pharmacists are willing to deal under the counter. For the sake of a fast buck, they risk the health, even the lives, of their customers. Of course, most pharmacists are honest and conscientious. But a surprisingly large number are willing to step on the shady side of the street for a quick profit.

Why has this counterfeit traffic been allowed to flourish virtually unchecked? For four main reasons:

• The Food and Drug Administration, which is responsible for drug purity, has been understaffed and apathetic. The enforcement problem admittedly is not easy. Before FDA can act, it must be proved that the traffic is interstate, and that the drug under scrutiny is below standard. Result: FDA has tended to dismiss drug faking not so much as a national peril but as a matter of pirated trademarks.

• State laws, or the lack of them, are another obstacle. The zombie merchants know all too well how to take advantage of loopholes. When Massachusetts

Washington correspondent for *Parade*.

(Continued on next page)

authorities were about to pounce upon one counterfeiter, for instance, he simply loaded his machines into the back of a truck at midnight and transplanted his factory to New Jersey—a state that does not require drug manufacturers to be licensed.

● There has been a conspiracy of silence on the part of reputable manufacturers and pharmacists, lest the public be frightened away from their legitimate products. Only lately have a few leading firms agreed that the public interest demands a national campaign of warning and exposure.

● The American Pharmaceutical Association has tried bringing moral pressure to bear upon its members. But aside from passing high-sounding resolutions, mailing out literature, and discussing the problem with enforcement agencies, it has accomplished little.

Some zombies actually contain the correct ingredients with only the trademark faked. Others are imitations that resemble big-name drugs yet technically cannot be classed as counterfeits. But most are at least diluted; and some contain dangerous dosages that can cause allergies, cancers, and even death. Others are simply worthless, like the vitamin capsules filled with sawdust recently confiscated in Detroit.

Diluted drugs may do no immediate harm, but neither do they do much good, of course. Over a period, they can cause a patient's death simply by *not* curing.

The drug bootleggers are encouraged by the record of arrests, prosecutions and punishment, which is so meager as to be alarming. Those who have been nabbed usually have gotten off with light fines. The record provides clear evidence that the racket is completely out of control. Legitimate drug manufacturers are far from satisfied that everything possible is being done to protect both their products and the public's safety.

The profit in counterfeit drugs is vast; the risks are small; punishment has been trivial. So long as this equation remains, the deadly traffic will flourish.

• • •

Since this article above was published, the Food and Drug Administration has said that production of zombies is not declining, but growing.

The District of Columbia Pharmaceutical Association, anxious to purge an honorable profession of its shady operators, conferred with *Parade* about the problem. As a result, a committee was organized and a Washington pilot project set up.

In this project, pharmacists will sign a "Pledge of Ethical Practice" and agree to forfeit a $10,000 bond if, knowingly, that pledge is broken. Those who sign will be issued blue-and-white seals as a symbol of the purity of their pharmacies.

The issuing of seals and recording of pledges in Washington will be the responsibility of a three-man, not-for-profit committee — the National Committee Against Counterfeit Drugs (NCACD), consisting of Jack Anderson, who directed *Parade's* investigation; Warren Woods, prominent Washington attorney in no way connected with the drug industry; and Walter Mancuso, president-elect of the pharmaceutical association.

Certain drug manufacturers have expressed willingness to provide shoppers, investigators, and testing facilities to police the program. Committee investigators will spot-shop drug stores.

Any complaint that a pharmacist is violating his pledge will be throughly investigated. Serious evidence of counterfeiting will be turned over to authorities for prosecution. Should the authorities fail to take what the committee considers satisfactory action, however, the committee will reserve the right to file civil suit and present evidence in court to collect the $10,000 forfeiture. Any forfeits collected will go to a scholarship fund for the training of pharmacists.

The response to the seal program has been encouraging. But to kill the bootleg drug racket entirely will require tougher state and federal laws, perhaps tougher policing and penalties. Until that day comes, pill purchasers should be on their guard.

Double Talk

The *U.S. Armed Forces Medical Journal* has collected some rich euphemisms, of the sort sometimes found in articles about drug testing. For example:

"We determined to conduct a controlled comparative evaluation of the most commonly used agents in order to assay their respective advantages and disadvantages." *Translation*: What else could we do with those samples?

"Exhaustive perusal of the available literature revealed the paucity of experimentation in this area." *Translation*: Nothing new in this week's *JAMA*.

"Subjects were randomly selected without prior attention to inherent clinical variables." *Translation*: We used anybody we could get.

"Side effects generally occur as a result of personal idiosyncrasy rather than as a predictable response to the dosage level." *Translation*: Be careful with this stuff.

"The precise mechanism through which the response is mediated has not yet been defined." *Translation*: We don't know what happened.

"We gratefully acknowledge the cooperation, in many areas of this study, of the Blank Laboratories." *Translation*: They paid us.

by Morton C. Creditor, M.D.

House Staff Training on a Private Medical Service

Condensed from The Journal of Medical Education, *August 1960**

The post-World War II demand for the establishment of residency training programs to accommodate the large numbers of veteran physicians resulted in the sudden approval of many private hospitals for residency training. The majority of these residency programs have continued to operate despite the fact that the need for their inception no longer exists.

There currently are available in this country far more residency positions than domestically trained candidates for these positions. This has resulted in fierce competition between hospitals.

In this competition, the long-established residencies in university and municipal hospitals have rightfully triumphed in acquiring the best students. During this same period the establishment of new residency programs in Veterans Administration and Armed Forces hospitals further separated the private hospital programs from the mainstream of most qualified candidates.

Many private hospitals began to offer attractive inducements in the form of increased "stipends" (now reaching figures to merit the more appropriate term "salary"), family housing facilities, fringe benefits, etc. Fortunately, this has done little to change the trend, since well-motivated candidates are seeking an educational experience and not merely a good "job."

Many private hospitals with well-qualified and cooperative staff physicians offer excellent programs of instruction. A recent trend has been toward the employment of a full-time director of medical education, whose primary function is to coordinate the training program. These practices have resulted in excellent formal teaching programs, but have not significantly increased the rate of application for house staff positions in most private hospitals.

The main problem in the private hospitals is the availability of patient material to the house staff members. The most important requirement of internship and residency is that the trainee acquire a wide experience, including responsibility for the management of disease. The problems pertaining to this requirement on private medical services are obvious.

However, socio-economic conditions have extended this problem to the university centers as well. With the gradual disappearance of the indigent patient, the large medical centers must also utilize the private patients in their teaching programs. The private hospital now has the opportunity to become competitive in relation to this.

Private hospitals can provide fully acceptable excellent training programs based on private patients. A few principles must be abided by:

1. The primary purpose of internship and residency is education, not service. Pre-definition of the responsibility of each individual in the departmental teaching program is needed.

The medical staff must accept the fact that the house staff will not be spread thinly for the purpose of accomplishing all the chores of the hospital. Furthermore, and much more difficult, the members of the attending staff themselves must perform these tasks when no house staff physician is assigned to a service.

The house staff should not be required to perform service relating to private patients unless these patients are available as educational material. This implies that, in general, the patients admitted to a service will be available for teaching purposes, formal or otherwise, and is best accomplished if this is hospital policy and if staff appointment be made contingent upon acceptance of this principle.

2. The trainee must be included in the total responsibility for the total care of the hospitalized patient. His role must be active.

The responsibilities of the house staff members must be graded according to their experience and proficiency. This is, however, *supervised* responsibility, and can be applied to the care of private patients without endangering the private patient-doctor relationship.

The attending staff physician must become imbued with the concept that the house staff member is his associate in his hospital practice; that he has a defined role which is neither permissive nor passive.

The resident physician must be offered the opportunity to formulate and exercise judgment, and to act when necessary. And above all, the house staff physician must not be bypassed by the attending physician.

3. Finally, physicians and the communities which they serve must constantly be made aware of the benefits of a teaching program. Emphasis should be placed upon the value of the program as continuing postgraduate study for the attending staff with obvious ultimate benefit to the patients.

Dr. Creditor is director, medical education and research, Menorah Medical Center, and associate professor of medicine, Kansas University School of Medicine.

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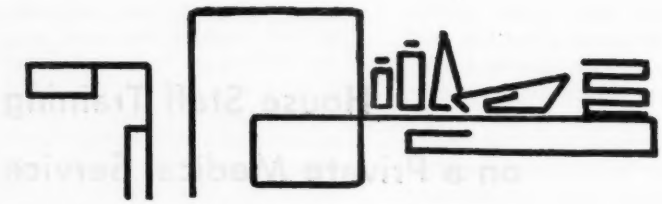
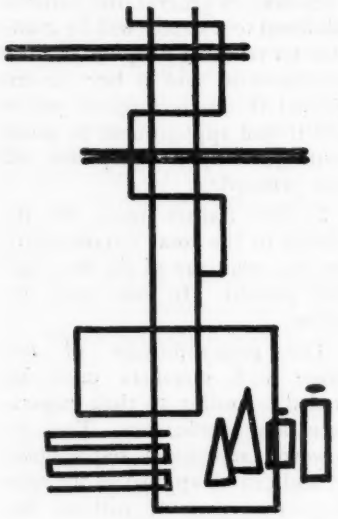


Integrated Communication through Construction



by Gordon A. Friesen

Condensed from
Hospital Progress, *August 1960*

Since in the average hospital 50 percent of the nurses' time is spent gathering supplies, the objective in planning the 250-bed Holy Cross Hospital now being constructed in San Fernando, Calif., was to place at the disposal of medical and hospital staff the supplies needed, without loss of time or steps, in order to allow the optimum use of professional abilities in rendering patient care.

In most hospitals there are many sources of supplies which are apt to be located in widely separated parts of the building. The wasted time spent in requisitioning and collecting supplies from many "central" storerooms (which have no relationship to each other and function as independent units rather than coordinated services) can be saved by utilizing the concept of one source of supply for all articles.

At Holy Cross, all sources of supply, including laundry, sterile supply, storerooms, pharmacy, etc., are logically grouped around the master dispatch center on the ground floor of the hospital.

From this dispatch center supplies are sent via an automatic ejector vertical conveyor system to supply cores on each of the patient floors. From the floor supply core, materials are taken by cart to the patient's room.

With the automatic ejector system, tray conveyors carry supplies to the desired floor where the ejector—with the capacity of eight trays per minute—unloads the trays automatically. Only one operator is required.

After reprocessing and/or prepackaging, all supplies are sent to the processed storage area of the master dispatch center for eventual distribution to the floor. The complement system of supplies, which is based upon the diagnosis of the individual patient, is used in order to assure the nurse that she has what is needed, when she needs it in the patient's room.

After the 24-hour complements of supplies are conveyed to the supply core on the floor, they are placed on flexible carts for delivery to the patients' rooms and stored in a special cabinet—the "nurserver." This is actually a combination of two distinct double-door units—one for clean supplies and the other for used items—which is located within the service area of each patient's room. It can be stocked or soiled items removed without entering the room.

All soiled material placed in the nurserver will be regarded as contaminated and will be placed in disposable plastic bags.

Periodically, the soiled materials are picked up and returned to a soiled holding area on the floor. From there, reusable items are returned by the descending conveyor used only for soiled items to a central decontamination area for reprocessing. In addition, the soiled holding area contains a trash chute, a linen chute terminating in the soiled linen room in the laundry, and another conveyor which returns dishes directly to the central dish washing room adjacent to the kitchen.

To coordinate the supply system, and to take care of emergencies, a specialized two-way voice communication system will be installed. Stations in each of the service areas will enable the nurse to call the supply core of the floor, the nurses' station, or the master dispatcher.

This unit augments the patient-call system, and will free nurses from hundreds of unnecessary trips each day.

Another feature of the communication system is a push-button, audio-visual, in-out register accommodating 200 names, which will enable the switchboard operator and other personnel to know instantly whether or not a doctor is in the hospital. The system is designed to permit easy and economical expansion up to 1,000 names and will provide instant registration at many locations in the hospital without as much wire and cable as is needed for old-fashioned systems.

As a logical result of this planning, and with the support of modern communications, professional abilities will be better utilized and the cost of operating the hospital will be substantially reduced. Yet with all these innovations, Holy Cross Hospital is costing no more to build than a traditional structure.

Mr. Friesen is president, Gordon A. Friesen Associates, Washington, D. C.

Another Hill-Rom private room grouping —in beautiful, durable Maple

● The popular No. 9000 grouping is now available in hard maple—one of the most attractive and durable of hardwoods. The grouping includes several items not previously produced for hospital rooms, such as hanging wall cabinets, hanging wall closets and a bedside cabinet lamp—all designed to make possible fewer pieces on the floor. Result—rooms that are easier to clean, and that give a less crowded effect.

Included in the room pictured above are: No. 90-65-1 All-Electric Hilow Bed; No. 9003 Bedside Cabinet with No. 307 Lamp; No. 90-614 Overbed Table; No. 90-07 Straight Chair and No. 9008 Arm Chair. Also available with this grouping are: No. 90-62 Electric Hilow Bed, No. 90-61 Manual Hilow Bed and No. 9001 Standard Height Bed. Catalog and complete information on request.

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The No. 90-65-1 All-Electric Hilow Bed and No. 90-62 Electric Hilow Bed are listed by Underwriters' Laboratories as safe for use with oxygen.—administering equipment of the nasal mask type and half-bed length standard oxygen tent.

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(over)

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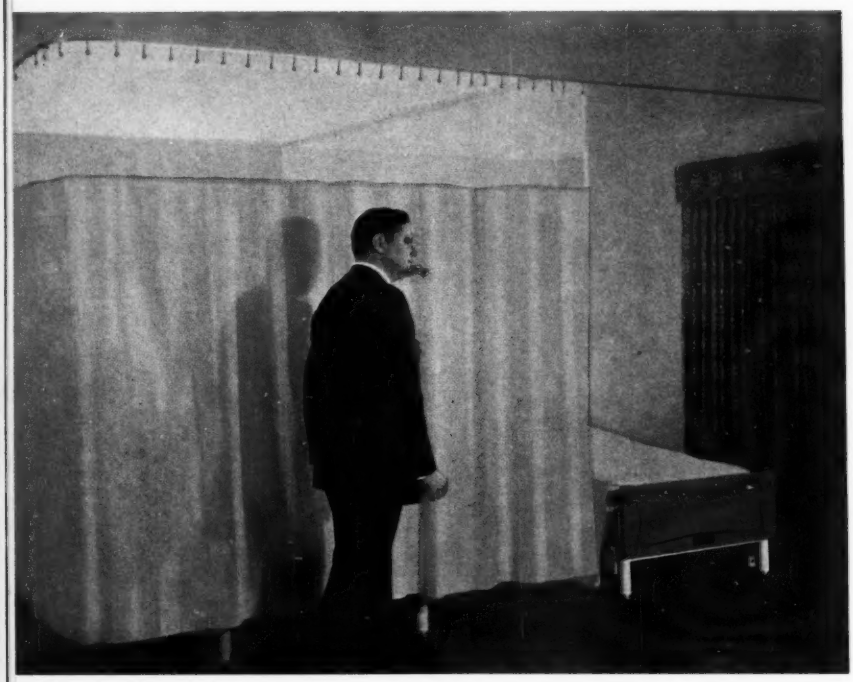

COMPLETE PRIVACY
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Because of the small size of the slides, storing curtains against the wall requires minimum amount of space. Curtains do not interfere with the placement of furniture.

In a four-bed ward it is necessary to afford each patient complete privacy. Four "L" shaped units and four curtains do the job. Hill-Rom curtains are easy to wash and easy to iron.

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Shown here is a recessed-in-ceiling installation of Hill-Rom A.E. (aluminum extruded) Screening. This type of installation is preferred by many architects and decorators, especially for new buildings and major remodeling jobs. Nylon mesh top curtains, which should always be used with this type installation, permit more light and better circulation of air.

Other types of installation for A.E. Screening are:

Surface-mounted *(ceiling type)*

Near-ceiling suspended *(dropped from ceiling)*

These other types of installation make it possible to screen any size or shape room or ward, in either new or old buildings. Hill-Rom A.E. is the one line of cubicle screening that has been designed and engineered to meet the exacting demands of architects, maintenance engineers and hospital administrative groups. The combination of aluminum track and nylon slides gives a smooth, quiet operation. The administrative groups appreciate the low cost, and the maintenance people like it because it requires the minimum amount of maintenance.

Hill-Rom cubicle curtains are made of permanently flameproofed cordette materials in a choice of colors. Hill-Rom curtains are now available for replacement of curtains. Just specify size, length and width, and grommet spacing.

New Screening catalog will be sent on request.

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Changes in Medical Education: Seven Variations on the Theme

Some 900 medical educators and guests from across the nation as well as several foreign countries—including 25 medical-school deans from Mexico and Central and South America — attended the Association of American Medical Colleges' 71st annual meeting, October 30 to November 1, at Hollywood Beach, Fla.

The common theme running through the meeting was an appraisal of the changes taking place in medical education. Below, TOPICS presents selected abstracts of some of the paper and speeches given at the meeting.

The Role of Private Patients in Medical Education

In Edmonton, Alberta

For the last 36 years the University of Alberta faculty of medicine has maintained a grade A accreditation and graduated 1,339 physicians in spite of the fact that 95.7 percent of the admissions to its four affiliated general hospitals (with a total of 2,726 beds) are occupied by private paying patients. Recent articles on medical education would suggest that this situation is somewhat unique and is, in fact, a predicament many schools view with alarm.

We believe private patients constitute exceptionally fine teaching material, for the following reasons:

1. This type of patient eventually will constitute the bulk of the student's future practice. Is it not fitting, therefore, that his major exposure should be to private patients?

2. Private patients are better witnesses and, as a rule, present disease states at an earlier and consequently educationally more valuable stage in their morbid process than many of us were accustomed to see in the charity wards in days gone by.

3. The teacher, when using private patients, must exemplify for the student the ultimate in physician-patient relationships to maintain the patient's cooperation and create an optimal educational experience.

4. Total patient care is more readily apparent in the relationship of the doctor to his private patient than it is in most outpatient departments, where, if it is present at all, it is often artificially produced through an elaborate integration of representatives of the behavioral sciences.

The success or failure of the use of private patients for teaching depends far more on a reorientation of the philosophy of our medical teachers than it does on the assumed resistance of the private patient himself. To this end, we believe that the preceptorship program, in one of its many forms, is the essential basis for the integration of private patients into the sphere of undergraduate teaching. The success of such a program depends upon attention to the development, within the individual student, of an approach to patients and an ability to assess situations which will lead automatically to the creation of satisfactory patient-student rapport.

In addition, for years we have used a procedure — based on common courtesy rather than premeditation — in obtaining patients' cooperation for clinical purposes. The procedure has five essential steps: (1) if the patient to be presented is not the clinician's own patient, he first contacts the patient's attending physician in advance of the presentation and obtains his permission to use the patient; (2) the teacher next personally visits the patient; (3) the patient is introduced to the student group, individually if possible, and the clinician expresses his appreciation that the patient has volunteered to participate; (4) the focus of attention is on the history and physical examination during the patient's presence; and (5) the patient is sincerely thanked for this contribution to the teaching exercise.

Accordingly, almost every patient expects to be used for student instruction. That this expectation is associated with anticipation rather than antipathy leads us to believe that our philosophy regarding teacher-patient relationships has been well founded. We think the current controversy over the use of private patients for teaching is out of proportion to the problem itself. Certainly it demands a little more time and consideration of the rights of patients as individuals than is often evidenced on public ward services, but in return the dividends are greater. — *Robert A. Macbeth, M.D.*, professor of surgery, and *Walter C. MacKenzie, M.D.*, dean, faculty of medicine, University of Alberta, Edmonton, Alta., Canada.

In Chicago

Because of the trend toward more universal health insurance, which has decreased the number of charity patients who have served as the major source of clinical teaching material in this country, the private paying patient will play an increasingly important role

(Continued on next page)

in the education of medical students, interns, and residents.

Since 1927 the University of Chicago has carried on an active program in teaching and research using patients who pay for their medical care. Our method of dealing with these patients is as follows:

The patient may be referred to the clinic by his physician or another patient, or may initiate his own visit. He may wish to see a specific doctor, a specialist, or he may desire general medical help. First he reports to an outpatient clinic, where he is usually seen by a senior medical student or a resident. The medical student is checked by one of the attending physicians, who then follows the patient for the remainder of his care, unless he is transferred for specialized care. Patients seen by the residents remain under their guidance with appropriate consultation from the attending staff.

Should the patient require hospitalization he is admitted on the service of the staff physician in whose outpatient clinic he was seen. In the hospital he is usually assigned to a junior medical student who does a complete work-up. The intern does a history and physical examination, and, in conjunction with the resident on the service, determines the diagnostic tests and the therapeutic regimen. The attending physician makes rounds and in consultation with the house staff guides these procedures where appropriate. Thus each patient is seen by students at all levels.

The clinical faculty is convinced this system is a good one and that a kind of training is given which will have a lasting value.—*Robert G. Page, M.D.*, and *Wright Adams, M.D.*, department of medicine, University of Chicago.

National Effort Needed In Financial Aid to Med Students

If modern medical education is to meet its minimum goal of providing sufficient physicians to care for the nation's health needs, there must be a national program for alleviating the financial problems of medical students.

Along with a decline in the number of applicants to medical schools there has also been a definite increase in the cost of the education. Medical students have shown that they are willing to undergo considerable sacrifice to achieve a medical degree, and the schools have put forth great efforts to help their students financially, but nothing less than a total national effort will ameliorate this condition.

Based on a study using 4,899 returns from anonymous questionnaires sent to seniors from the 1959 graduating medical school classes, we found that 20 percent of the graduates (or approximately 1,400 students) were in debt upon graduation in an amount exceeding $2,500 (average debt was $6,584).

By 1965 we will need an additional 750 graduates per class to maintain the current physician/population ratio of 132/100,000. Taking into consideration that many of the students who might contribute to this increase are entering the less costly and better financially supported graduate departments in the natural and social sciences, and adding to this both the students in debt and those who never choose medicine because they cannot afford it, the minimum estimated number of students per class who need financial aid is approximately 2,150 in a class of 7,750 (28 percent), or 8,600 students in all four classes in medical schools in a given year.

The essential point of any program of financial assistance is to provide the student with economic capability to meet necessary expenses. Currently the student and his family are providing more than 80 percent of the funds for his medical education. A reasonable goal for financial assistance is to achieve an equal division of labor between the family's current resources, the student's future income as a physician, and society.

The above data imply an average need of $4,000 in loan assistance and $4,000 in non-refundable stipend assistance for 2,150 students per medical-school class. Such a program would cost $17.2 million per year for 8,600 (28 percent) individuals in the total medical-school body of 31,000 (estimate of 1965 needs for medical-school graduates), or $86 million over a five-year period between 1961-66.—*J. Frank Whiting, Ph.D.*, assistant director, division of operational studies, Association of American Medical Colleges, Evanston, Ill.

Medical Overseasmanship— Obligations, Opportunities, Operations

Once it is agreed that the nation and the West have an obligation, a duty, or simply a self-fulfilling urge to take part in the progress of the rest of the world, certain special opportunities present themselves to the nation's medical schools. In the first place, they will find that what they have to offer is particularly welcome. Of all the varied and often somewhat doubtful blessings the West can confer, better health is perhaps the most easily understood, the most immediately wanted, and the most firmly grasped. The instinct to live and to reproduce overrides all doubts about foreign intervention, the evils of urbanization, or the destruction of tribal value systems.

Medicine, too, offers the opportunity of introducing into a society a series of concepts or attitudes indispensable for the development of a modern socioeconomic system. These are: the idea that man can control nature, that loving one's neighbor is a good thing, and that social organizations can be built on other than family lines.

Nowhere save in Western Europe have these three elements been put together into a single weapon system for waging the battle against poverty, disease, and death. Medicine combines these elements in a way easily understood and immediately welcomed by almost any population, however backward—for instance, by demonstrating that ill health is not a matter of evil spirits or divine wrath, that the doctor gives equal care and attention to all comers, and that the concepts of science and Christian brotherhood may be put together into community organization for the development of better water supplies,

sanitation, and hospital care for the good of all.

The job calls for sustained effort. Any medical school that commits itself to a serious role in this effort should prepare for a program which will long outlast the lives of its present faculty. A primary requisite is at least a small nucleus of staff which gives highest priority to problems of overseas medicine. Stable financing must be found and some sort of tenure arrangements devised for people willing to commit themselves to this effort.

An immediate problem for the American medical school is the relative ignorance of the people who come to it from overseas for training. Many potentially excellent people lack sufficient training in basic science of one sort, or else their clinical training has followed a pattern so different from ours that they will feel completely at sea when called upon to perform the usual duties of American interns and residents.

We know little ourselves about providing medical care on a mass basis. Even in our own country medical education has provided little leadership, and the profession as a whole has shown little concern for the quantitative aspects of medical care. What a paradox it is, for example, that just as we are arming ourselves to improve medical education in underdeveloped areas we wake up to find ourselves relying on the products of these very same schools to staff the non-teaching hospitals of our own great metropolitan areas.

The first thing the individual medical school can do to prepare its students for their international as well as their national responsibilities is to demonstrate that it takes the problem of overseas development seriously. A maximum effort would include taking responsibility for the development of a medical school abroad, through some such mechanism as an ICA contract. Schools unable to take on so great an over-all job can still help by encouraging outstanding faculty members to accept overseas assignments with a firm agreement to take them back at an appropriate level when the task is completed.—*Robert S. Morison, M.D.,* director of biological and medical research, Rockefeller Foundation, New York City.

Describe Program for Educating Students on Costs of Care

An educational program concerning patient charges and costs of utilization of ancillary services for inpatients was instituted on the teaching services of The Jefferson Medical College Hospital not only to acquaint medical students with the costs of patient care but also to stimulate them to consider, through realization of charges, the need for the procedure or service under discussion.

Charge manuals and charge sheets were supplied for their use. Patients were selected to demonstrate costs of care for varying diagnoses and lengths of stay, reducing the burden of the study and the monotony of repetitious calculations. Records were kept for the complete period of hospitalization of each patient studied.

In group presentations of these patients, costs were brought out. Need for a procedure or test was discussed and its true indication established through attempts to lower the financial burden. Adequacy of simpler screening procedures in place of complex technics was spotlighted. Choice of the sequence of studies and technics to combine procedures came under consideration as they affected length of hospital stay.

Discussions at ward rounds to determine the best procedure replaced independent promiscuous ordering by various residents and attending physicians. Real benefits in evaluation of indications for, and selection of, alternative procedures resulted. Resident participation extended these benefits to the house staff and attending staff as well.—*William A. Sodeman, M.D.,* dean and professor of medicine, Jefferson Medical College, Philadelphia, and *John A. Nelson, M.S.,* Metropolitan Hospital, Detroit.

Study Shows Senior Med Students Feel Omnipotent Toward Patients

For the past few years we have been involved in studying and evaluating the process of teaching senior medical students in a clerkship setting, with emphasis on the area of attitudinal development and change. In a sub-study of 75 senior medical students serving a psychiatric clerkship held five half-days a week for six weeks, we used an attitude scale to measure the strength of various attitude complexes.

We found that one sees an increasing awareness on the students' part that they as physicians have both positive and negative reactions to patients which may influence the nature and course of treatment. Students become much more aware of the importance of dealing with patients' emotional reactions, and they view with less favor the notion that formality, impersonality, and studied detachment are necessary accoutrements of the scientific physician. They broaden their concept of the meaning of illness and its potential influence.

However, there is an attitudinal area which appears in our data and casts a shadow over any atmosphere of optimism. This area seems to reflect the student's view of himself as occupying an authoritarian, omnipotent role *vis-a-vis* the patient. It reflects the student's acceptance of the idea that he has unquestioned prerogative to influence, manipulate, or control the patient's behavior because of his own special status as physician, and that this prerogative gives him free license to override the patient's judgment as he sees fit and impose his own value system upon the patient.

This question of medical omnipotence as a personal attitude has often been discussed. The contribution to its development of four years of training which necessarily stresses the great responsibility our society accords the physician is generally understood. One might also question the degree to which choice of a medical career by the student and choice of the

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applying student by the medical school operate selectively to give us students whose personalities easily accept the omnipotent role.—*David I. Cheifetz, Ph.D.*, Presbyterian-St. Luke's Hospital, Chicago; *Jack Saporta*, and *Paul E. Nielson, Ph.D., M.D.*, University of Illinois College of Medicine, Chicago.

Develop New Test to Evaluate Internship Experience

One problem confronting those who are involved in determining a physician's qualification for the practice of medicine is how to judge his clinical competence. Medical knowledge can be tested with considerable precision by comprehensive written examinations. Can equal confidence be placed in tests of such professional competence as keenness of observation, skill in establishing rapport with a patient, thoroughness and finesse in performing a physical examination, ability to synthesize and make a diagnosis, clinical acumen and judgment in patient care?

The National Board of Medical Examiners and test experts of the American Institute for Research are studying this question in a two-year project to develop a new test which will go beyond examinations of medical knowledge and measure professional competence in clinical situations.—*John P. Hubbard, M.D.*, chairman, department of preventive medicine, University of Pennsylvania School of Medicine, Philadelphia; secretary, National Board of Medical Examiners.

American Academy of Dermatology and Syphilology

Dermatologists Study Implications Of Research Into Skin Disorders

Psoriasis

Skin Disease May Be Genetically Influenced

There is considerable evidence that psoriasis might be a delayed physiological birthmark, determined by genetic predisposition. In effect, the outer layers of the skin race out of control in their reproductive rate.

Aminopterin and methotraxate slow down this cell reproduction and can be given safely to ambulatory patients for at least partial control in severe cases of psoriasis, in individuals whose lives may be ruined because of unsightliness of the disease or because of actual interference with their ability to earn a living.

These drugs must be given directly to the patient by the physician. They are subject to rigid FDA control, particularly to prevent them from being abused and used for conditions that have nothing to do with psoriasis.

Neither drug is curative. The inborn predisposition persists even after the scaly areas are brought completely or partially under control.—*Rees B. Rees, M.D.*, chairman, division of dermatology, University of California School of Medicine, San Francisco.

Selectively Deposited Drug Reduces Scale Formation

A recent study revealed that the formation of scales on the skin in psoriasis patients was greatly reduced by the use of the drug hydroxystilbamidine.

Twenty-one patients were given the drug by intramuscular injection. In all cases the scaling characteristic of the disease was greatly reduced. In nine patients, the disease cleared and remained suppressed for two to three months. However, in no cases could the drug be considered a curative agent.

Clinical investigations and laboratory studies showed that the drug, which can easily be detected in the tissues by its fluorescence, was selectively deposited in the parts of the skin and nails affected by the psoriasis. Coincidentally, the acid mucoid substances that customarily accumulate in the epidermis and nails of a person afflicted with psoriasis could no longer be detected in the affected tissues on microscopic examination.—*Daphne A. Roe, M.D.*, department of pathology, Memorial Hospital, Wilmington, Del.

Find Psoriatic Arthritis A Definite Entity

Arthritis may be associated with psoriasis, and there are indications that this psoriatic arthritis is associated with spondylitic heart disease.

Studies conducted on 86 patients afflicted with both arthritis and psoriasis indicated that psoriatic arthritis is a definite entity distinct from rheumatoid arthritis.

There are eight reasons for concluding that it is distinct:

1. Psoriatic arthritis is found more in men; rheumatoid arthritis is prevalent among women.
2. Often psoriatic arthritis develops in younger individuals, whereas rheumatoid arthritis usually is found in older persons.
3. X-ray changes show differences between the two types.
4. There is a lack of subcutaneous rheumatoid nodules in psoriatic arthritis.
5. The arthritis and psoriasis are of equal society.
6. The psoriatic nail change is similar to distal interphalangeal arthritis.
7. Both arthritis and psoriasis are resistant to corticosteroid therapy.
8. Agglutination tests for the rheumatoid factor are

nearly negative.—*William B. Reed, M.D.,* clinical assistant professor of dermatology, and *S. William Becker, M.D.,* emeritus professor of medicine, University of Southern California, Los Angeles.

Psychoanalysis Helpful In Skin Disorders

Psychiatrically-oriented treatment may be an effective form of therapy for the permanent eradication of neurodermatitis. Psychoanalytic treatment is also effective in helping persons afflicted with psoriasis.

In mild, localized cases of neurodermatitis, short-term superficial psychotherapy is frequently sufficient. In the more extensive generalized cases, psychoanalysis with gradual growth and development of the personality is necessary for permanent results.

Since neurodermatitis often is induced by difficult relationships between a patient and members of his family, "family psychotherapy" is probably the most effective form of psychiatric treatment for that disease. This treats both the source of the problem and the problem itself.

In psoriasis, the personality structure of the patients is a healthier one. There is less dependency, less rigidity; patients' personalities are well compensated. These patients are usually friendly, adaptable, placid and flaccid in appearance. They seem to be better adjusted than the average person in our society. However, this placid facade covers up repressed self-assertion and self-protection which may result in spastic, latent, chronic gall-bladder disease, which in turn affects liver metabolism, which in turn is related to psoriasis.

Many of these patients are so satisfied with their adjustability that it is difficult for them to see the relationship of their problems to their psoriasis. Short-term psychotherapy has given good results in intelligent patients. Awareness of their behavior and the repercussions on the skin have enabled some patients to become more assertive and protective of their needs, with the result that their psoriasis has cleared up.—*Sadie H. Zaidens, M.D.,* lecturer in psychosomatic dermatology, New York Polyclinic Medical School and Hospital, New York City.

Sunburn

Chronic Exposure Linked To Skin Cancers

Chronic exposure to sunlight can be one of the major factors in the production of precancerous and cancerous conditions of the skin, warned the committee on cosmetics of the American Medical Association, in a scientific exhibit presented at the meeting. Stephen Rothmann, M.D., Chicago, is chairman of the committee.

The threat of malignancy does not concern the person who sunbathes occasionally, according to the committee, but all individuals engaged in outdoor pastimes as well as occupations should adopt protective measures. Complete immunity to the sun can never be assumed. Natural skin oils, the horny layer of the skin, and sweat provide some protection against sunburn, but in many persons this not enough to prevent severe damage and induce tanning. Therefore it should be supplemented with protective substances, the committee advised.

Synthetic Tan No Protection

Because synthetic sun tans without exposure to the sun are really chemical stains on the outer layer of the skin, it is possible to get sunburned underneath the tan.

A recent cosmetic development making it possible to acquire a suntan without sunning causes a chemical staining reaction which brings about a brownish discoloration of the horny layer of the skin. This reaction does not involve any normal physiologic activity of the skin, and therefore the "tan" does not act as a sun screen.—*Howard I. Maibach, M.D.,* assistant instructor in dermatology, University of Pennsylvania, School of Medicine, Philadelphia.

Wiley M. Sams, M.D. (center) University of Miami, Miami, Fla., poses with gavel of office after his election as president of the American Academy of Dermatology and Syphilology at the association's recent meeting in Chicago. Thomas Butterworth, M.D., (r) assistant professor of dermatology, University of Pennsylvania School of Medicine, Philadelphia, is the new vice president; and Robert R. Kierland, M.D., Mayo Clinic, Rochester, Minn. is secretary-treasurer.

Skin Pigment Associated With Sun Protection

The ability of one's skin to protect itself from the damaging ultraviolet rays of the sun is definitely associated with the quantity of pigment present in the skin.

It has long been recognized that the darkly pigmented races are less prone to develop aging of the skin and skin cancer as a result of chronic exposure to the sun.

A skin specimen was taken from an albinoid Negress who had suffered extensive skin damage from sun exposure. The skin specimen showed no sun damage in the pigmented area but extensive damage in the nonpigmented area. In both areas the top layer of skin, covering the layer under observation, was the same thickness.—*Robert T. Carson, M.D.,* department of dermatology, Los Angeles County Hospital.

Opposing Recommendations on Financing Submitted at Conference on Aging

Opposite positions on financing health care for the aged were taken by two of the principal sections of the White House Conference on Aging, held in Washington, D.C., January 9-12. Twenty-seven hundred delegates attended the conference, which culminated two years of planning.

The section on income maintenance, which had the responsibility for developing a policy on medical-care financing, approved, by a vote of 170-99, a majority report favoring use of the social-security mechanism.

The section on health and medical care, under the chairmanship of AMA president-elect Leonard W. Larson, M.D., approved, by a vote of 165-122, a report favoring the Kerr-Mills approach and including the statement: "Compulsory health care inevitably results in poor quality health care." A minority report criticized insinuations that the quality of care given by a physician is influenced by the source of payment.

Under the structure of the conference, each of the 20 sections was autonomous and had the power to make final recommendations. Opposing views have equal weight and will be passed on as separate recommendations to Congress and the President. The final report is to be submitted to the President within 90 days.

The majority report of the income maintenance section stressed that states should take advantage of Kerr-Mills benefits for care of the medically indigent and that voluntary health insurance should be encouraged, but that the social-security mechanism should be the basic means of financing health care for the aged; that Forand-type legislation would ease financial burdens on hospitals; and that social-security coverage ought to be extended to all persons who work (M.D.'s now are the only occupational group excluded).

The minority report of this section contended that the majority's endorsement of the compulsory social-security approach was contrary to the recommendations of the majority of the state conferences on aging. Of the 30 states which made specific recommendations on financing of medical care for the aged, only 10 favored the social-security mechanism.

The report declared further that the Kerr-Mills law effectively meets the needs of aged persons who require assistance.

Among major recommendations of the section on health and medical care were: adequate inpatient and outpatient facilities in hospitals for rehabilitation of the aging, federal grants to states for demonstration projects and training of personnel and study of the feasibility of a National Institute of Rehabilitation. Members of this section recommended that Congress authorize a National Institute of Gerontology within the NIH structure, and that the federal government give full financial support to biomedical investigations in teaching institutions and government agencies.

Another of the 20 work sections dealt exclusively with federal responsibilities. It favored the financing of health-care benefits under social security and called for establishment of an advisory council to guide such a program. Other recommendations were: guarantee of freedom of choice of physician and hospital to recipients of government-sponsored care; tax reforms that would stimulate gifts to institutions and agencies that help the aged; and channeling of more federal research funds into gerontology projects.

President Eisenhower, in his address at the opening session, said the conference should develop every opinion "no matter how it may be opposed to another opinion."

Dr. Larson told the delegates that the nation must not only provide adequate care for those who are ill but must give more attention to the preservation of health.

Marion Folsom, secretary of Health, Education, and Welfare in the Eisenhower cabinet from 1955-58, endorsed the social-security approach in his address to the conference.

Sen. Pat McNamara (D., Mich.) repeated an earlier charge that the AMA had tried to "pack" the conference, and AFL-CIO president George Meany, in his talk, accused the AMA of having a "nineteenth-century philosophy" in opposing health care under social security.

On the other hand, Rep. John E. Fogarty (D., R.I.), who introduced legislation establishing the conference, declared: "In my opinion, charges that the conference is 'stacked' are insulting to delegates facing up to the problems that will confront every one of us some day."

The income maintenance section, which Senator McNamara accused of being "stacked," voted 170-99 in favor of the social-security approach.

Federally-administered funds spent on programs and services for older people have increased from less than $5 billion in 1950 to more than $15 billion in 1960, according to a report to President Eisenhower by the Federal Council on Aging. The report was one of three publications issued by the council for use at the conference.

Topics

presents

HEALTH CARE OF THE AGED

"I am certainly not an exponent of socialized medicine, but I personally can't see any other answer than taxation for the care of the aged through the social security mechanism. If someone had told me ten years ago that I'd sit at this table and say this, I wouldn't have believed it."
—KAUFFMAN

Symposium on Health Care of

Moderator: John G. Steinle, president, John G. Steinle and Associates, Garden City, N. Y.; consulting editor, HOSPITAL TOPICS.

Panelists: Martin Cherkasky, M.D., director, Montefiore Hospital, New York City; David W. Stewart, managing director, Rochester Hospital Service (Blue Cross), Rochester, N. Y.; John W. Kauffman, administrator, Princeton (N. J.) Hospital.

Whether or not you agree with our panelists, we hope their frank soul-searching comments spur you to do some additional thinking on this vital issue. — THE EDITORS.

Mr. Kauffman: The hospital profession generally and the people generally throughout the country speak of the aged and the chronically ill synonymously. They are not synonymous, and they should be defined. The aged who are ill fall in the chronic illness group; the aged who are not ill will require rehabilitation to maintain an identity with life, or maybe they require housing or are in another category. We cannot think of them as all lumped into one. There are a group of aspects that must be considered.

I also think that there has been a lack of national leadership in the field of chronic illness and care of the aged, in that national leaders have not really defined the areas and have not helped the public generally and the hospital people particularly to start to think of their responsibilities toward the future.

It seems that because of the financial aspects in many cases, general hospitals have a great desire to ignore the total care of the patient; we think only of acute illness, and we have a tendency to want to push off the other aspects of medicine. It also seems that in too many instances when we do start to think of caring for the aged and the chronically ill, we think immediately of building a facility, instead of doing as much as possible for the patients in the home before we start building beds for the care of these patients in institutions. Many times when units are considered we forget to consider the possibilities and the problems of financing, of staffing, and of need.

Mr. Steinle: Dr. Cherkasky, would you agree that there is a sharp distinction between the definition of the aged and of the chronically ill, or is there such an over-lapping that it is hard to draw a clean-cut distinction?

Dr. Cherkasky: I would agree with just about everything that Mr. Kauffman has said. I think it is true that the older people have more than their share statistically of chronic disease, and of course this is what makes us focus our attention on it. What is more, they are least able to deal with it because of their precarious financial situation. But I do think it is a very serious mistake, as Mr. Kauffman has pointed out, to consider that old age and chronic disease are synonymous. In view of the fact that old age is approaching for me, I hope that it is not so.

Also, I think it is a very grave mistake to separate people off by that magical number 65. When an older person has chronic illness, his problems are virtually identical with those of patients with chronic illness in almost any other age group, and it is not desirable or in his best interest to separate him because he happens to be old. Furthermore, most of the people who have chronic disease are *not* old – three-quarters of all the people with serious chronic disease are between the ages of 15 and 64.

I also agree with Mr. Kauffman that we are too prone to think first of the enormously expensive institutional resources when dealing with these people. We in the general hospital field have not shown all of the ingenuity we might have in dealing with the problems of chronic disease in resources other than hospitals, such as the home and the nursing home.

Mr. Steinle: Mr. Stewart, I understand that in Rochester you are planning a very extensive home-care program. Will you tell us something about your plans, and possibly how they are to be financed?

Mr. Stewart: First just to re-enforce what has already been said, I think that there has been too little coordination on the part of hospital and Blue Cross people, Blue Cross acting as the financial mechanism. Too little ingenuity and original thinking have been given to this problem. Certainly Blue Cross plans have stuck with financing just general hospital care. This is tied in, I think, with the lack of additional facilities in communities.

When our community started to plan the community-wide home-care program which was established in October, it became immediately obvious that the program simply wouldn't work unless there was mas-

of the Aged

sive community financing available to pay for the services. With 80 percent of the metropolitan area enrolled in the Blue Cross plan it was apparent that Blue Cross was the only mechanism which could not only make a contribution toward providing additional health services in the community, but could also make the services financially available to everyone in the community. By making new and needed services financially available, you accomplish the unique objectives that Mr. Kauffman and Dr. Cherkasky mentioned as the kind of thing that we could do.

We need to broaden the spectrum of financing, while not removing the emphasis on the general hospital, where the big money will always go. The general hospital is simply the focal point of the community's total health program. Through broadening the coverage available in Blue Cross plans—remembering that these are the community financing mechanisms most oriented to the public good, and therefore most easily urged and persuaded to adapt this kind of thing—we can, I think, make some tremendous strides in providing broader and more equitably spread health care.

Mr. Kauffman: Would you mind if I reviewed a pet project and theme that I think is tremendously important in the field—namely, that it should be the responsibility of the American Hospital Association or some other national group in the future to start a program of educating hospitals generally in the total care of the patient—to define and to try to help to educate trustees and administrators to consider all of the areas of patient care—not just care of the critically ill, which has been our main function in the past, but rehabilitation, care of the chronically ill, and, most important, diagnostic medicine, which I am sure will have an effect on the amount of chronic illness we will have in the future. How adequate are preventive medicine and diagnosis today? We should consider the development of a community health center that will encompass the care of the patient in the home as well as in an institution, if it's necessary. Establishment of organized programs and education of our field generally are among the major needs of the hospital field today.

Mr. Steinle: Do you feel that because the problems of the aged are so all-encompassing, including almost every area of human experience and knowledge, it

(Continued on next page)

John Kauffman: "AHA and AMA have gone on record one way or another opposing federal intervention in medical care for the aged. The AMA particularly has always been opposed, yet has never advanced a really sound program that the people could buy. We have continued to stick our heads in the sand until medical care of the aged has become a political issue which will be settled on a political basis."

David Stewart: "In order to finance care of the aged on a basis other than a federal government program, you must have agreement in the community that financing of the aged is part of the employer's responsibility. . . . If communities refuse to accept the responsibility of caring for the total community and if business and labor feel they want the least expensive type of program which automatically predicates dropping older people at the time of retirement, I think we will have to have some governmental aid."

Martin Cherkasky: "The mechanical problems of our older people are such that they cannot be financed through the people's own resources; I believe financing can best be done through the social security mechanism. . . . However, I would like to see Blue Cross develop the pattern; then any monies, whichever the source, could be funneled through Blue Cross. . . . What we need is national leadership in dealing with the kind of broad problem medical care for the aged is. AHA has an opportunity now which it probably will not have again to assume leadership. . . . You don't fulfill that responsibility by dodging the issue altogether, which is what they did at the San Francisco convention."

John G. Steinle: "In the whole field of planning for the aged we have fallen into two basic traps—one is fractionalization—the quibbling with all different kinds of classifications; the second, which is really a corollary of the first, is forgetting that people are aged, yes, but they are individuals first. In the studies we have made in nursing homes, we have found that in planning, they all overlook this one fundamental fact. . ."

would be difficult for hospitals to assume so broad a burden? Would you be more specific in terms of the areas of responsibility that would be assumed?

Mr. Kauffman: This would depend in every instance on the individual community. In some communities it may become the responsibility of the general hospital to provide an all-encompassing experience. In some other areas the general hospital will work with a total health-agency group, and there will be a division of responsibilities. Some other agency may accept responsibility for part of the housing of the aged.

It could be that in a town like Princeton, Princeton Hospital should have this responsibility, and that its Merrick unit for the chronically ill should expand to care for all kinds of chronic illness, including illnesses of children and of advanced senility, which we presently do not care for. Maybe it is also the responsibility of Princeton Hospital to provide general housing for the aged in the Princeton area similar to that being considered and constructed in other communities, since no other agency has undertaken this challenge. We certainly feel that the development of the hospital should be along the lines of providing diagnostic facilities for the community, and that for the future a home-care program is a must.

Dr. Cherkasky: We at Montefiore first started out as a chronic disease hospital in 1884, and of course now we are a major general hospital carrying on all general hospital responsibilities. We have come up with what we think is a solution to the problem of the care of the chronically sick. It is centered on the general hospital, and it takes into account that the general hospital is an inordinately complex and costly instrument. We must bear in mind that because the general hospital is so costly and precious we have to use it, in any scheme, for the purpose for which it was intended. The general hospital was created for and serves its most useful purpose in the definitive diagnosis and definitive care of sick people. When we are dealing with chronic disease, whether it be for the old or for the young, to use the general hospital for other than definitive care is wasteful.

In acute illness the general hospital by definitive diagnosis and definitive care dealt in fact with the whole of the illness, but obviously in most chronic disease the period devoted to definitive diagnosis and definitive care is usually only a small part of the illness. Therefore, if the general hospital is to contribute effectively to the care of the chronically sick it must have related to it other facilities and resources to cope with chronic disease beyond the initial acute stage.

First and foremost there must be adequate provision for ambulatory services. It is axiomatic that unless the nature of the illness dictates otherwise, ambulatory services are best for both patient and for the community in that they are the least expensive and keep the patient in the home which, obviously, is the normal place for people to be. In addition, for patients who have completed the definitive period of hospital care there should be resources to care for the patient in his home when he is not ambulatory, in the form of an organized home-care program. If there is not a suitable home where he can be cared for, there should be an appropriate nursing home.

There is one common denominator in all of these programs of outpatient care, home care, and nursing home care: they each require varying degrees of medical care. The supervision of medical care in these related programs can best be carried on under the aegis of the general hospital.

Now, of course, Mr. Kauffman has added other dimensions which I would certainly agree are vital to the health and welfare of the aged—housing, recreational facilities, and many other things which we have not dealt with. In the area of medical care, I believe that the general hospital is going to have to take a leadership role and a broadened responsibility which it has seemed very reluctant to assume.

Mr. Kauffman: At Princeton's, Merrick unit for the chronically ill, our cost in 1959 was $15.04 a day as compared with the hospital cost of $39.09 a day. So the difference in cost is substantial; it is costly to keep these people in a general hospital if there are other facilities for them.

Mr. Steinle: One of the reasons that this spectrum of services cannot be offered is the restrictiveness of Blue Cross. Mr. Stewart, I understand that you have announced a new program primarily aimed at the aged in Rochester. Would you discuss this, and tell us how you think it is going to affect the sort of planning that Dr. Cherkasky and Mr. Kauffman have suggested?

And here the panelists are in earnest discussion. L. to r. around the table are Mr. Stinele, Mr. Kauffman, Mr. Stewart, and — head on hand — Dr. Cherkasky.

Mr. Stewart: Finances are inextricably mixed in with the whole problem, and I believe none of these lower-cost and more economical facilities which meet medical requirements of the patient will be effectively used in great volume until financing is available to all persons for care in such facilities. Consider the older insured person who has very few financial resources, and who lives alone in a second floor walk-up apartment—if she fractures her ankle, the only place she can stay and not have a heavy drain on her finances is in Dr. Cherkasky's expensive hospital beds. This is where all of the financing is oriented.

In Rochester we have taken the attitude that as a community plan we are simply going to have to provide for all of the services in a way which will stimulate the patient to utilize the most economical service consistent with good medical care. This is the reason that the pattern of benefits in our new program for the over-65 provides for care in the general hospital, in chronic hospitals, and nursing homes, and in the home. The less care a patient uses in the general hospital, the more care he gets of the less expensive kind; the less care he uses in the chronic hospitals and nursing homes, the more care he can have at home.

Our new contract actually provides a patient under our community home-care program up to 210 days of care in the home with visiting-nurse service, if the patient will spend only a short time in a hospital and then go home and start utilizing these services.

Dr. Cherkasky: We've talked about this kind of program for many years, and it always sounded very good, but it never had the kind of motivation which Mr. Stewart has just supplied. Frankly, I think it's a happy day when Blue Cross has recognized that the funds which it receives to expend can be used in changing patterns of medical care. I'm sure that the kind of economic incentives which you have tied in with the programs are going to make it go, whereas a thousand speeches on the part of Mr. Kauffman and myself without such incentives would never make it go.

Mr. Kauffman: You might be interested in the fact that we're working with the Hospital Service Plan of New Jersey toward extending care, on a pilot-study basis, into the Merrick unit on the basis of two days in Merrick for one in the hospital. Instead of 120 days of full coverage, a patient would be eligible for 240 days of convalescent care. The person with a fractured hip needs rehabilitation, and in such cases this type of arrangement would work out extremely well. I hope that this project is accepted by the plan board and the hospital board.

Dr. Cherkasky: This project and the plan Mr. Stewart has described are the most encouraging evidences that I have heard of in years—that we are really going to get on with expanding our programs.

Mr. Kauffman: I believe that the New Jersey plan is also extending itself into home care in two pilot studies, one in Orange Memorial and one in Mountainside.

Mr. Steinle: Do you think that plans such as this actually require a program like Blue Cross, so that the older persons not now covered can purchase Blue Cross in the future?

Mr. Kauffman: I don't know the answer to this, and I think it will be interesting to see what happens. I hope sincerely that Blue Cross will play a major part in it.

Dr. Cherkasky: I also hope that Blue Cross will play a role, and I believe that if it undertakes to utilize its financing position to promote the kind of plan that Mr. Stewart has talked about, even if we wind up with substantial financing for the care of older people from the federal government, it could well be channeled—and I personally would be for its being channeled—through Blue Cross.

Of course, my own view is that the mechanical problems of our older people are such that they cannot be financed through the people's own resources; I believe financing can best be done through the social security mechanism. However, I would like to see Blue Cross develop the pattern of how older people can and should be cared for; then any monies, whatever the source, could be funneled through Blue Cross.

Mr. Kauffman: Doctor, would you agree that it seems almost impossible today for the majority of the people to budget enough money to maintain themselves in an institution, regardless of the fact that the cost may be half or less than half that of the general hospital bed? That most people have not budgeted enough money to have an income of between $3,000 to $4,500 per annum to maintain themselves in an institution?

Dr. Cherkasky: I completely agree. With hospital and other costs going up, and nothing in sight to indicate that they will go the other way – quite the contrary – and with older people by and large being economically disadvantaged, it is beyond their capacity to finance their medical care alone. The suggestion has been made that older people could finance their medical care through their own resources if the rest of the community voluntarily contributed more. I am not sanguine that this approach is realistic.

Mr. Kauffman: I ask this question to develop another point. To do a good job of rehabilitation in any one of the areas of chronic illness or the care of the aged, whether they be ill or well, requires facilities; it requires practically the same number of people, and in some instance more hands and feet than are needed in a general hospital – different types of people, many more nonprofessionals. These people are needed to do the things to help the patients live a useful life or one that has some identity. This is where I think the general hospital and the community hospital can do so much good over and above what has been done in the average proprietary nursing home, where the motivation is strictly monetary.

Dr. Cherkasky: Here, too, I believe that we in the general hospital have a great responsibility that we have not yet fully accepted. I say without fear of con-

(Continued on page 41)

This Is the Blue Cross Rochester Plan

A special benefits Blue Cross contract, with no age limit for subscribers, was introduced in October by the Rochester (N.Y.) Hospital Service Corp. Available to anyone who has not been hospitalized for 30 days prior to applying, the contract includes care in hospitals, chronic hospitals, and nursing homes, and also home care.

Benefits are divided into three classes (see chart). A specific number of units is assigned to each day of care in each class, with a maximum number of units allowed for each class of benefits. Benefits are available until a total of 420 units of care have been used or 240 days have elapsed since the first day of hospitalization.

When the units are used up, no more care will be paid for until 180 days have passed.

The chronic hospital, nursing-home, visiting-nurse service, and state hospital benefits are available only following hospitalization in an acute general hospital.

By assessing a higher number of units for care in an acute general hospital, the plan is thus offering an incentive to patients requiring convalescent or chronic care to get out of the acute hospital as soon as possible and into a chronic hospital or nursing home or into the home-care program. Formulators of the new contract feel that as a whole the public has become more sophisticated in health care contracts.

The special benefits contract is especially designed to provide maximum protection at the lowest possible cost for persons age 65 or over who are not already Blue Cross members, according to David W. Stewart, managing director. It is also available for those under 65 who previously have been unable to obtain coverage of any kind because of severe physical problems.

For care of conditions existing prior to the effective date of the contract, there is a waiting period of one year, as there is for hernia, rectal conditions, ulcers, gallbladder disease, varicose veins, and goiter conditions. There is a six-month waiting period for tonsil and adenoid surgery.

Describing the contract as "truly unique," Mr. Stewart points out that in the past contracts have tended to "push people into the hospitals," but that the provision for nursing-home care and home care leads the person toward a "medically desirable but less expensive" course of treatment. "It has been fairly well demonstrated," says Mr. Stewart, "that very few people need to stay in a general hospital bed beyond 30 days. A large proportion of the older sick patients need additional care beyond this time in some facility — chronic hospital, nursing home, or at home."

Rochester Blue Cross and Blue Shield have a combined membership of some 560,000 persons in a six-county area. The Monroe County Medical Society (Rochester) said it "heartily commends" the health-insurance plans for the over-65 group.

Until this new contract went into effect, persons 65 and over could not purchase coverage, although contracts in effect before that age continued in effect when the person reached 65 years of age.

Under the contract, up to $10 is allowed for emergency accident care rendered in a hospital within 24 hours of the accident. Operating room and other services provided for surgical care are covered in full on an outpatient basis.

During the full benefit days in an acute general hospital, the maximum semiprivate room charge (currently $26) is allowed toward the cost of a private room (minimum currently $29) in Rochester area Blue Cross member hospitals. In non-member hospitals, up to $18.50 a day for semiprivate accommodations, plus 50 percent of the charges for other services, is allowed.

Cost of a single membership is $23.10 quarterly or $92.40 annually.

The statistical data accumulated under this contract will be used in determining the benefit structure of the Rochester community standard program, which currently covers some 70 percent of the entire population.

Class	Description of Benefits	Units per day or Visiting Nurse visit	Maximum Units
I	*Full benefit days in an acute general hospital including semiprivate room and all other regular services normally provided (X-ray excluded)*	6	180
II*	*Partial benefit days in an acute general hospital at $10 a day for room and all other services*		
	Chronic hospital days up to $10 a day for all services	3	354
	Nursing home days up to $7.50 a day or 80% of the charges, whichever is less		
III*	*Visiting nurse visits upon referral of the attending physician*		
	State hospital days at $3 a day	2	414

*Chronic hospital, nursing home, visiting nurse service, and state hospital benefits available only following hospitalization in an acute general hospital.

tradiction that in general the nursing-home situation in the United States is the worst institutional problem we have to deal with. The word "scandalous" has been used in testimony before a Senate committee. Worse words have been used, and I think they're appropriate. I do not believe the nursing-home situation can be corrected without significant outside help for the reason that you have noted. When a nursing-home operator knows that the less he gives the patient the more profit he will have, he would have to be inhuman not to respond to this temptation. I think that if we have Blue Cross programs which link adequate compensation to standards, and if the general hospital recognizes that it has a responsibility for the supervision of medical care in nursing homes, we may be able to deal with this situation.

Mr. Kauffman: I have heard that the average proprietary operator anticipates a profit of about $1,000 a bed per annum. In our survey of homes to determine why our rates are basically the same, and in some instances higher than those of a proprietary home, with our operation showing a deficit and theirs a profit, we have always found that the major difference is in service and staffing. Rehabilitation and activity programs and occupational therapy were practically nonexistent in the majority of homes surveyed.

Mr. Stewart: That's right. This is the reason that this over-all problem is so difficult for Blue Cross to attack. In Rochester we tried to set up standards for nursing homes, and when you come to effective enforcement of standards in these proprietary institutions you are in an extremely difficult field, almost beyond the realm of possibility. Hopefully, I think we will see in many communities across the country, as people become aware of the need, much greater activity than there has been in past years. They will also become aware of the need for construction of community nonprofit nursing homes which are tied in with hospitals.

Dr. Cherkasky: Mr. Stewart's remarks are very appropriate, and I can confirm them from our own experience. We are constructing on our grounds, as a physical part of our hospital, an 80-bed nursing-home unit, because we feel that this facility will spare our beds, will be more appropriate to the people who require the kind of services which Mr. Kauffman talked about, and will provide the kind of standards of care that Mr. Stewart and Blue Cross rightfully insist on. We believe this is what hospitals are going to have to do.

Mr. Stewart: We have a similar situation in our community. A 350-bed home for the aged is being built, and across the street from one of our big general hospitals there will be some 200 beds for the care of our ill aged.

Mr. Kauffman: Having the various types of facilities that are needed for the various categories is most important. You can't put all of them together. Convalescent or ambulatory patients in many instances are opposed to and resent being placed with the chronically ill on a permanent basis. It certainly retards rehabilitation.

Mr. Steinle: Do you think that we can finance the necessary medical requirements for the aged on a voluntary basis, or must financing be supplemented or paid for by the federal government? Dr. Cherkasky, what do you think?

Dr. Cherkasky: Payment by the federal government I consider *is* financing by oneself. If people during their productive years have certain salary deductions which go into a social security fund and are matched by their employers' contributions, and if these monies are used at some subsequent period of life for pension or for medical care programs is there any question that this is financing oneself? This is the only way that I believe we can put aside the large amounts of money which are necessary so that people after age 65 can have appropriate medical care coverage – the kind of broad Blue Cross program that Mr. Stewart talks about. If we look at the economic conditions of older people, we find, as Mr. Kauffman said before, that it is impossible for these people to provide adequately from their incomes – in many cases barely subsistence incomes – for the kind of services that they will require.

Mr. Stewart: In order to finance care of the aged on a basis other than a federal government program, you must have agreement in the community that financing of the aged is part of the employer's responsibility, just as much as a pension plan is a part of his responsibility. We're fortunate in having a community in which industry and labor are very close on this, and we're fortunate in having some 50 percent of all people over 65 currently enrolled in our plan. We recognize that even in our situation we need to go further, and we are going forward rapidly.

If communities across the nation refuse to accept the responsibility of caring for the total community, and if business and labor feel that they want the least expensive type of program which automatically predicates dropping older people at time of retirement, I think we will have to have some governmental aid. However, I think it's up to individual communities to determine whether they are going to do it on their own. If they're not going to do it on their own, they're going to have to accept some political solution to the problem.

Like Dr. Cherkasky, I hope that Blue Cross will not lose its important role in handling the financing and care, even though some federal or state government funds are involved. Certainly the work done in Colorado and a few other states is a graphic example of how these things can all work hand in hand.

Mr. Steinle: Mr. Kauffman, have you any comments on this?

Mr. Kauffman: I am certainly not an exponent of socialized medicine, but I personally can't see any other answer than taxation for the care of the aged through the social security mechanism. If someone

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had told me 10 years ago that I'd sit at this table and say this, I wouldn't have believed it.

I think it would be wonderful if financing could be done on a community, county or statewide basis, and in some instances it has worked. But when all is said and done I don't believe it will work, because too many governments within communities do not support their hospitals. They don't support them for the care of the acutely ill, let alone the care of the aged, so I would have great misgivings about any other solution forthcoming except that which we all hoped would never happen.

Dr. Cherkasky: One thing we've all been worrying about, I think, is how government money will affect our operations and the flexibility and imagination that we've been able to use up to this time. While there may be some basis for this concern, just being against such governmental programs will insure that when they do come about they won't be the kind of programs we want them to be. We get a million dollars a year from the City of New York toward the operation of our hospital. While it is by no means adequate, it hasn't resulted in one iota of interference.

If we come to the conclusion that the government is going to have to provide all or a substantial part of the money necessary for the medical care of older people, and I do not see how we can come to any other conclusion, I think it's important for those of us in the hospital field and in Blue Cross to get in there and see that the money is handled in such a way as to enhance and encourage the kinds of programs that can be carried on through the voluntary hospital system. If we do not participate actively with planning for the use of federal funds, then such monies may well become politically controlled, and this would stifle us and the programs we need to develop.

Mr. Kauffman: At a meeting during the recent AHA convention, two Canadians told me that they found the Canadian system very workable. They said, "We really never had it so good, and it has settled a lot of problems for us. Many of the fears we had we no longer have, and we're really very happy with it." Now, I'm sure that many Canadians had felt pretty strongly, as we do, that this would be almost the end of the hospital system if it ever came about.

But I think the thing that worries me more, and again it's on a national leadership basis, is that our own American Hospital Association and the American Medical Association have gone on record one way or another opposing federal intervention, and have said that a program for medical care for the aged can be worked out on a voluntary basis. The AMA, particularly, has always been opposed, yet has never advanced a really sound program that the people could buy. I think we have continued, as we do in many instances, to stick our heads in the sand, until medical care of the aged has now become a political issue which will be settled on a political basis.

Dr. Cherkasky: I believe Mr. Kauffman is hitting a very important point. If we do have federal financing, I think we're going to get into trouble if the AHA and the AMA persist in this attitude. Then, instead of becoming partners and setting up a program, we are going to be the recipients of "this is the way it's going to be."

I am particularly surprised, frankly, at the attitude of the AHA, because this burden of caring for the older people without adequate financing is one that's ultimately transferred to each one of our institutions. I have a very serious problem in my institution, because older people don't have the money to buy Blue Cross or other policies to finance their care adequately. Money from the federal government, properly handled, would be very welcome.

Mr. Steinle: Do I detect the feeling on the part of all of you that the problem is not so much the entry of the federal government into providing funds for the care of the aged, but actually the administration – how, how?

Mr. Kauffman: How is the question. I'd like to refer to the rejection by the 1960 AHA House of Delegates of an effort to put the AHA on record in favor of the social security mechanism for financing the health care of the aged.

Mr. Stewart: Do we get into a touchy area?

Mr. Kauffman: I think that some of us in the field had better be heard from. I for one am concerned. The leadership is not moving ahead with the times.

Dr. Cherkasky: I believe there is an explanation for this if we have enough courage to face up to it. I think it's in the interest of the hospital, as it is in the interest of the community, to insure adequate financing – in the way that Mr. Stewart talked about, if it can be done. Apparently we have some serious doubts, based on experience, whether it can be done other than through some governmental mechanism like social security.

Now why did the delegates vote not to go along with it? The reason is that many of the hospitals represented are overwhelmingly influenced by the physicians, and frankly it is not always true that what is good for the physicians is good for the hospital or the community. I think that if left alone the American Hospital Association administrators would support the programs that we are talking about.

Mr. Kauffman: It also worries me that sometimes the AHA, if it believes in something strongly, has not taken the stand that it believes in, and maybe is not subservient to but at least cooperative with he American Medical Associaion. Maybe some day in certain things we will have to have a difference of opinion.

I know of a community hospital which is attempting to establish wide diagnostic facilities for the community. Now it has been said by some leaders in the field that many areas of chronic illness can almost be wiped out by good preventive medicine. For instance, according to a doctor from Lankenau Hospital, if every young woman of 16 years and older had a physical annually, cancer of the uterus could be wiped out in a reasonable length of time. If such statements are true, in certain areas it will be helpful to establish preventive clinics, where people can get annual physi-

"If we do not participate actively with planning for the use of federal funds, then such monies may become politically controlled and this would stifle us and the program we need to develop."—CHERKASKY

"We don't want to lose the emphasis on local controls. Regardless of what program we get into and whether or not government funds are involved, local control is desirable in order to prevent the construction of some monolithic central organization."—STEWART

cal examinations, where we can do away with some of the chronic illnesses, and eliminate some of the problems that develop in later years.

Nevertheless, this community hospital's program is being fought very diligently by members of the hospital's staff on the basis that it is an invasion of the practice of medicine; that these diagnostic services are all available to the public in their offices, and that there is no need to establish such a clinic. While this may be true, it does not bring about the end result of an annual physical for as many people as is possible. Thus organized medicine in many areas fails to keep abreast of the changing social concepts that we're living with.

There's no use kidding ourselves — we've been living with social security since the early thirties, and I believe it's with us to stay. I think that many of us over the years hoped it would not be expanded.

Mr. Steinle: I'm wondering if there isn't a feeling here that it is desirable, regardless of the source of the funds, to maintain at the local level control of the planning and the programming for the medical care of the aged. In other words, any federal legislation should be cognizant of differences in local conditions and develop some mechanisms by which the administration of the programs could be provided at the local level.

Mr. Kauffman: I discussed this with the Canadians. Apparently their federal government does not participate in the total Canadian program, but administers through the various provinces. I certainly hope that we would either administer the program on a state basis in this country, or through the various Blue Cross plans. I hope we never set up a bureaucracy to administer this total program, for I think we are all aware of what would happen. It would become gigantic, and it would not take in consideration the various economic factors of the different areas of our country.

Mr. Steinle: Do you have any comments on that, Mr. Stewart?

Mr. Stewart: I of course will stand by my premise that the community can handle a few things. The federal government can make massive assistance available through expanding the rehabilitation facilities and programs that it has, and through providing substantially greater funds than it has for the construction of proper facilities within various communities, and for the education and training of new people. With the expanded federal effort combined with a well-organized community approach, we can have a substantial effect on this over-all problem.

It's still impossible to handle the total program in this way, because there will always be the people whose financial resources are so low that they won't even be able to fit into community programs. This, I think, might be one of the things that would lead to substantial expansion of the type of legislation that was passed by Congress last summer.

Dr. Cherkasky: Mr. Stewart, I think that most of us would agree with you that if it were possible for the community with its own resources to meet the problem, we'd be for it, but let's face the facts. Right now, except in some favored communities, and even there, the community has not been able to mobilize its resources. The situation is going to get worse; we now have 15 and a half million older people, and we're going to have 20 million. The percentage of older people gainfully employed full-time is dropping and has been dropping for 30 years.

Even if the community could now do the job, and there is no evidence that it can, it's almost certain that in 10, 15, or 20 years, when older people get to be a larger portion of the population, even the best-meaning and the best-organized communities are going to have to have a lot of help.

Mr. Stewart: In that regard, of course, I think that in 15 or 20 years a much greater percentage of people over age 65 will be in a far better financial position than they are now, because of the increased impact of social security itself, plus the tremendous expansion of business pension plans. The person who is getting $135 or $150 in social security and another $135 or $150 from a retirement plan is becoming more common, and is in a far better position than the average retired person five or 10 years ago, who had a very small pension, if any at all.

Mr. Kauffman: You mentioned two figures which add up to $3,600 a year. It is not possible in most instances today to render adequate care on $3,600 a year.

Mr. Stewart: I had tied in with my earlier comments the need for continuing, substantial Blue Cross protection for retired people — that is one of the pre-

(Continued on next page)

"There has been a lack of national leadership in the field of chronic illness and care of the aged, in that national leaders have not really defined the areas and have not helped the public generally and the hospital people particularly to start to think of their responsibilities toward the future. . . . In too many instances when we think of caring for the aged and the chronically ill, we think immediately of building a facility, instead of doing as much as possible for the patients in the home . . ."
—KAUFFMAN

dications for my statement on the capacity of the community to handle programs.

Dr. Cherkasky: If we've dealt with this money problem sufficiently, there is one point I would like to add. It has to do again with the divisions of older people, the sick, and so forth. I think that we probably ought to have some new semantics; we ought to talk about people as being hospital-sick or not hospital-sick. We are in some difficulty when we try to categorize patients as acute, chronic, geriatric or old, and so forth. An older man who has a cancer of the stomach is hospital-sick; a young boy who has an acute appendix is hospital-sick. They belong in the same kind of resources. I think that the national organizations might take some leadership here as well — a real clearing of the air with regard to the terms which I think confuse even the professionals.

Mr. Kauffman: I couldn't agree with you more, because sometimes people think they're talking about the same thing but really they're talking about two different things. When I was asked to speak on the AHA program, the instructions I received were somewhat confusing, for we were to talk about two things — the chronically ill aged, I was told.

Mr. Steinle: I think in the whole field of planning for the aged we have fallen into two basic traps — one is the quibbling with all different kinds of classificatiions; the second, which is really a corollary of the first, is forgetting that the people are aged, yes, but they are individuals first. In the studies we have made in nursng homes, we have found that in planning, they all overlook this one fundamental fact — that a person's likes and dislikes as a young person are usually carried through into old age; he is the same individual basically. These persons cannot be classified.

At this point, I would like to summarize the discussion and see whether there are any points that I have missed, or that you disagree with:

(1) The aged should not be confused with the chronic, and there is a need for better semantics. It has been suggested that in dealing with the health-care needs of the aged we classify them according to hospital-sick and not hospital-sick, not because they are aged, but because they are sick, regardless of what their age classifications are.

(2) There is overemphasis on the construction of buildings and facilities, and not enough of a focus on program.

(3) There is a need to expand the responsibilities of general hospitals to make them the centers for service to the sick regardless of their classifications; aged, young, acute, chronic, or nursing-home patients.

(4) Blue Cross plans which provide the spectrum of services, general, chronic or nursing home, with an incentive for services that fit the needs, are highly significant steps toward solution of the medical-care problem of the aged.

(5) There is a need for stronger, more effective licensing and supervision of programs for nursing homes.

(6) It is desirable, but probably not feasible, to finance care of the aged through local and personal funds; thus, some form of government tax for funds must be provided. The problem is not so much the source of these funds, but the method of their administration.

(7) It is desirable, but possibly not feasible, to keep the programming and the administration of the care of the aged at the local level.

Mr. Stewart: We don't want to lose that emphasis on local controls. I think all of us agree that regardless of what program we get into and whether or not government funds are involved, local control is desirable, in order to prevent the construction of some monolithic central organization.

Dr. Cherkasky: I would certainly agree, because our communities are all so different, with this proviso: that there be some over-all standards. We have seen that where the federal government provides matching funds for states to do the job, some states are not willing to do their part, so that I would say that the federal government ought to lay down broad criteria, with our help and guidance. We should then adapt our programs locally to our own culture and to our own needs and our own people.

There's one more thing that I think should be included in the summary: the point Mr. Kauffman made about the American Hospital Association. We think that there are times when it must divorce itself from its highly-respected sister organization, the AMA, and take positions which the doctors may find not to their liking.

Mr. Kauffman: Positions which are in the best interests of the sick.

Mr. Steinle: A clear responsibility, yes. The point has been made that the hospital is the vehicle speaking for the total community. This is a very different thing from what a purely individual professional organization, such as the AMA, sets out to achieve.

Mr. Kauffman: Organized medicine as such in any community doesn't really have the time to sit down and project itself into the future in relation to what the future needs will be. Doctors usually are so busy

practicing medicine, keeping abreast of changing concepts of medicine, that they don't have the time, and I think it is a very definite responsibility of hospital administrators and boards of trustees in the future to project the hospital according to the best interests of the community.

Dr. Cherkasky: While I believe that we must seek the cooperation of doctors in working out any kinds of medical-care programs, I do think that hospital administrators and boards of trustees have a clearcut responsibility to determine the directions and responsibilities which hospitals must assume to best serve the interests of the community.

Mr. Steinle: I ask the question, then, as to whether or not the role of the American Hospital Association should be that of an administrators' club or one of assuming major responsibilty in planning health-care needs of the community.

Dr. Cherkasky: We have lots of hospital administrators' clubs. What we need is a national organization to provide national leadership in dealing with the kind of broad problem which medical care for the aged is. The American Hospital Association has an opportunity now which it probably will not have again to assume leadership in one of the most critical areas affecting the health and welfare of the community. You don't fulfill that responsibility by dodging the issue altogether, which is what they did at the San Francisco convention.

Mr. Kauffman: As Dr. Cherkasky has said, the AHA will never again have the opportunity that it has right now to take the leadership in this field today and adopt the type of program that will be in the best interests of the community and the hospital. It behooves the association leaders not to stick their heads in the sand, but to get together and take a stand and push for what is in the best interests of everybody — to take the leadership which they haven't taken at any time. This leadership is important, and they can't pussyfoot; this is something on which they have to take a stand and represent the membership adequately. Personally, this dues-paying member feels very strongly about it.

Dr. Cherkasky: So do I.

Mr. Steinle: I think a reflection of what has happened is the discussion on where the administration of the recently passed health-care legislation is to be placed. All the indications are that the administration will be by the Bureau of Public Assistance instead of by the Public Health Service.

Mr. Kauffman: In my opinion, it was too bad that this last administration of the AHA took such a strong stand that it is the responsibility of hospital administration generally, and hospitals also, to cooperate closely in every respect with organized medicine. I think when a man becomes president of the American Hospital Association, he has to accept that office as his major responsibility at that time, and he can't let the fact that he is a physician or otherwise influence his thinking about hospitals generally.

Mr. Stewart: The only thing I would like to add is that aggressive attack on the part of Blue Cross in handling these problems at the community level is bound to fail without the strongest possible support from the community hospitals. There are many community hospitals, fortunately not in our own area, which take a very lukewarm attitude toward attacking this problem on an all-out basis locally before turning toward the government.

Dr. Cherkasky: Administrators, and boards, many of them, have to be schooled as to what hospitals are about, what their purpose is, what their function is, and how they can help, as Mr. Stewart has just pointed out, to push the kinds of programs which the community needs them to push. Blue Cross plans designed to extend and make coverage more comprehensive should have the active support of the affiliated hospitals. Where Blue Cross is not moving in this direction, member hospitals should be prodding it.

Mr. Kauffman: At Princeton's Merrick unit for complete unison within our board when a decision was made to establish a geriatrics unit or a unit for the chronically ill, because many board members thought this was not in their area of concern. They were only concerned with the area of the general hospital. Putting across the idea took some selling on the part of the administration and a couple of enlightened board members. We're going to have to see more of this.

Mr. Stewart: Right. There are even hospital board members across the country who in their own industries and businesses drop their employees out of their health program when they retire—whether the company has Blue Cross or commercial insurance. Certainly these board members need to be educated.

Mr. Kauffman: I believe we can educate our hospitals, and we can get the support of the trustees to recognize the prime responsibility, the prime objective and the prime reason for the existence of the general hospital. This is a service to the public, not to the doctor; it's a workshop for him, but it's first and foremost a place for our patients. And it's not the doctor's prerogative to settle all of the difficulties. Our job is to work for the best interests of the people.

"Administrators, and boards, many of them, have to be schooled as to what hospitals are about, what their purpose is, what their function is, and how they can help to push the kinds of programs which the community needs them to push. Blue Cross plans designed to extend and make coverage more comprehensive should have the active support of the affiliated hospitals. Where Blue Cross is not moving in this direction, member hospitals should be prodding it."—CHERKASKY

Senior volunteer Mrs. R. T. Crane is capped by Mrs. May Wilkinson, director of nursing service of Truett Memorial Hospital at Baylor University Medical Center, at semi-annual capping ceremony.

RECOGNITION

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By

Recognition is defined by Webster as "formal acknowledgment as of a fact or a claim — acceptance as entitled to attention." By whatever definition you choose, recognition is a "must" in volunteer service — although it does not necessarily have to be in an expensive form.

Recently a volunteer from a local hospital at a workshop for directors of volunteer service said, "I do not care anything at all about recognition and do not consider it necessary in volunteer service." This individual is unique. Of course, many fine volunteers in hospitals throughout the country work without any special thought of recognition. At the same time, it is a natural human trait to expect a "thank-you" in some form for voluntary service rendered. By the same token, it is the wish of most hospital administrators to give that recognition to those who voluntarily serve their hospitals throughout the year. It is usually the manner of recognition that poses the problem.

In Baylor University Medical Center we have established a system which we have found to be effective from our point of view and enthusiastically received by our volunteers.

The first recognition given is the cap which a volunteer receives when she has served 100 hours. The cap is presented at a formal capping ceremony held twice a year (spring and fall); the volunteers may invite a guest. A brief program is presented with the capping ceremony handled by our director of nursing service. Following the ceremony, a reception is held for the volunteers and their guests in our private dining room.

We found that the volunteers eagerly anticipated this event from month to month, and by the time the capping date is set enthusiasm and excitement are high. The pleasure and pride of family members at

*Director of public relations, Baylor University Medical Center, Dallas.

Group of senior volunteers capped at the ceremony.

volunteer service

By Marjorie Saunders*

Volunteers register and receive corsage prior to annual dinner honoring all volunteers.

tending the ceremony is also evident. They seem very impressed with the solemnity of the events, and enjoy the social hour afterward.

The next recognition we give our volunteers is a "V" emblem, which represents 500 hours of service. After that, a single bar represents 800 hours; a second bar is presented for 1100 hours; and a third bar represents 1500 hours. Upon completion of 2000 hours of service, a pin – which we are presently designing – will be given. All these symbols, except the pin, are worn on the sleeve of the blouse of the volunteer uniform.

These tokens of recognition are presented at the annual volunteer dinner, an occasion which honors all volunteers. At that dinner, a "volunteer of the year" is announced for the three divisions of the Volunteer Corps – day workers, business women, and junior volunteers. These are selected by a committee composed of persons who are experienced in directing volunteer services but are not identified with the hospital. Engraved silver trays are presented to those three volunteers in recognition of this special honor. In addition, all volunteers are given a flower and some small memento of the occasion. (This year the souvenir was a ball-point pen with the words: "Congratulations–Baylor University Medical Center.")

Supplementing these visible forms of recognition are the daily "thank-you's" and other expressions of appreciation spoken by the supervisor and other employees in each department where volunteers work. These simple words should not be minimized – they are of inestimable value.

Your own system of recognition can be as simple or as elaborate as you wish. The principal idea is that recognition is a must in an effective program of volunteer service. It has been said that "thankfulness means 'thinkfulness'." Let us think and give thanks to our dedicated volunteer workers for their valuable services to our hospitals.

Above: "Volunteers of the year" for 1960 hold silver trays they were awarded. (L.-r.) Marguerite Cook, business women's division; Ruth Lewis, day worker's division; Claudia Shepelwich, junior division.

Below: Dinner is served in the hospital cafeteria at the 1960 annual volunteer dinner and program.

● **A TOPICS PRIZE-WINNING ARTICLE**

The Hospital Viewed as an Organizational

of change . . . complexity . . . conflict

By James S. Urda

Presented here is the third-prize winning article in HOSPITAL TOPICS' *1960 annual editorial competition for hospital graduates. Author Urda, who originally wrote this article for a class in hospital administration at the University of Michigan is presently administrative resident at The Delaware Hospital, Inc., Wilmington, Delaware.*

Hospitals in the United States, whether considered together as an industry or separately as individual social institutions, can provide organizational researchers with a virtually untapped yet highly important and extremely interesting area for study. The interrelationships of consumers (patients), medical and non-medical workers, and the general public, within and without the organizational structure of the hospital, have only recently become a concern of psychologists, sociologists, and social-psychologists. I believe that the present dearth of organizational and behavioral research in hospitals can be attributed to:

1. A lack of understanding of the hospital structure and its need for qualified human research by the behavioral scientists themselves.
2. An absence of funds for administrative research in a characteristically non-profit industry (government or private fund sources have to be found to pay the bill).
3. An outmoded tendency on the part of hospital administration to hold on to old traditions and maintain indifference to the values of applying human relations skills learned through research. Administrators acting in this manner have a fundamental lack of curiosity, creativeness, or imagination and a too ready acceptance of the status quo.[1]

With respect to the indictment of hospital administration for not working toward broad knowledge and skill in the human relations field, as applied to the hospital, the development of high-quality university graduate programs in hospital administration is hopefully one ameliorating influence.

In this paper, I shall discuss the hospital organization, defining, characterizing, and explaining the peculiarities and inherent problems which make it mandatory that administrators learn intelligent principles of management and human relations skills. "The administrator of this highly differentiated social entity must be equipped to deal with his problems in as careful a manner or one as deliberate as he may have within his capacity to perform. He must be diplomat, social psychologist, accountant, and administrator."[2] It is the responsibility of every executive leader of hospitals today to develop both his capacity to understand and his ability to handle the people with whom and for whom he works. Research to broaden knowledge of human relations in hospitals and assist in this development of administrative skill is needed.

When speaking of "the hospital," I refer to that institution owned by a charitable, voluntary, and non-profit corporation and established for the treatment of all general sickness for all persons. This organization might also be called the community general hospital, as distinguished from the proprietary (for profit) institution or the governmental (usually for some specific purpose—psychiatric, VA, USPHS) institution. In studying what makes up the hospital, I feel that all significant considerations are covered by the words: change, complexity, conflict, and coordination. The hospital organization can be considered, therefore, to be fully characterized by a thorough inspection of these four "C's." It is the presence of all of the facets implied in these words, and their inter-mixture which explains the hospital and differentiates it from other enterprises or industries.

CHANGE IN THE HOSPITAL

My first point of definition and characterization of the voluntary general hospital is involved in the word "change." There have been developments in industry, medical science, and social trends which have had profound impact on the hospital industry. Developments inside and outside the hospital itself extend from the obvious—such as the constant pressure for physical expansion of facilities, buildings, and beds—to the more subtle—such as the employment

Synthesis

. . . coordination

of lay persons to perform tasks once considered "professional," for example, the work of nurse aides on nursing floors. Regardless of the speed with which any of these developments come about, they represent an extremely important factor in a generalized description of the hospital. Understanding the impact of past historical developments and recognizing the need for responsiveness to future developments constitute a vital art of understanding the hospital structure.

It has been only within rather recent history that hospitals have expanded their responsibilities from their initial basic purpose as an institution of charity, organized to care for the dying and sick poor. In fulfilling its present social role as community health purveyor, the job of enlarging and augmenting the diagnostic, therapeutic, and curative capability of the medical profession for the benefit and advancement of the health and welfare of the entire community has become its primary responsibility. Out-patient as well as in-patient care, ambulatory and emergency service are all an integral part of the hospital of today. "Hospitals in some form have existed for centuries yet the changes of the past 50 years, and particularly the last 25 years, literally have revolutionized hospital service."[3] The number of persons utilizing the services of hospitals, for example, is constantly increasing. Part of this change and revolutionization of hospitals it attributable to the corresponding industrial and social changes apparent in the United States during this same period. With increased standards of living, education, and mass communication, the public demands hospital service consistent with its actual needs, perceived needs, or ability to purchase.

The extremely rapid development of medical technology is another important aspect discernible when studying change in the hospital organization. This can be shown in many ways: the rapid development and application of new diagnostic and preventive technics and procedures; the recognition of bacterial presence and control through use of antiseptic and sterile methods, preventing or abating the spread of cross-infection; the furtherance of medical specialization forced by the almost boundless dimensions of knowledge, making one man's detailed comprehension of the whole body of scientific learning a virtual impossibility.

Financial and legal developments have very much affected the hospital in the past and continue to account for a large part of the present uneasiness on the part of hospital leaders. Donations by the very rich not only built hospitals in the past but also provided the largest measure of operating funds. This source of working finances is no longer readily available and payment for services either out of pocket or by "prepayment" (insurance—commercial or Blue Cross) is understood and adherred to by all but the indigent and the recipients of government financing. Voluntary health insurance has grown tremendously since its introduction in the 1930's; approximately 120 million persons are now covered by hospitalization insurance. The existing principles of setting prices for hospital services may undergo change with administrative attempt to more nearly relate amount charged for service to actual cost.

Legal trends of noteworthy importance in the hospital industry are: (a) the increase in number and amount of malpractice liability suits against doctors, nurses, and hospitals; and (b) the trend away from protecting the voluntary hospital from legal liability through the doctrine of "charitable immunity." It is significant that only a relatively small minority of states now follow the rule of total and complete charitable immunity for voluntary hospitals under all facts and circumstances.[4]

The final areas of change visible in the hospital are in personnel and administration. Job content and custom have changed over the years and will continue to change. Today, nurses are expected to perform many of the functions – such as taking blood pressure and administering hypodermic medication – which at one time no one but a doctor dared do. The traditional strict discipline of the doctor-nurse relationship in the hospital is less often adherred to. Formerly, nurses never spoke to a doctor unless spoken to; they stood up in his presence and sat only if told to. Functions of patient care formerly given only to nurses are assigned now to technicians, practical nurses, nurse aides, and volunteers. Labor unions are looking to organize presently unorganized professional non-professional employees. Centralization and specialization have been introduced by management wherever possible. In broader administrative terms, management must constantly be responsive to the actual needs of the community served. The administrator must be aware of the changing configuration of society in terms of age groups; he must develop new programs recognizing the community's need for health care in all routine as well as possible emergency and disaster situations. There is great need for vision, to see what the future requires, and for flexibility, to change when change is necessary.

Thus, we have seen that change is an important

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concept which aptly characterizes the hospital structure and background. The word "change" is meaningful to this industry with respect to social, medical, financial, legal, personnel, and administrative developments.

COMPLEXITY IN THE HOSPITAL

A second characterizing word of the hospital organization is complexity. This quality is, I think, generally recognized by the public so far as their high regard and awe for the virtues of caring for the ill are concerned. The backgrounds of people making up the several authority structures, the variety of services rendered, and the different employee groups needed are but a few factors which serve to exemplify complexity. Included also in this term is the fact that objective evaluation of customer satisfaction and high quality medical care are difficult to accomplish accurately.

Let us look first into the variety of employees needed to carry out the hospital's function. Since the average general hospital employs one and one-half to two employees for every bed it has available for patients, and pays out from 60 to 75 percent of its operating revenue in salaries and wages, employees are an important consideration. The very great shortage of all kinds of professional and non-professional employees gives those employed by hospitals ready opportunity for changing employers almost at will.

The kind of workers employed by the hospital varies by function of job and education. Functionally, the hospital employs professional, technical, craft, skilled, and unskilled help to fill a wide variety of jobs: nursing, lab technician, plumber, secretary, accountant, carpenter, and so on. The employees vary not only by function but also by educational level attained. Semi- and unskilled people with less than high school training fall to one extreme, while medical practitioners with 10 to 12 years of stringent formal education are on the other. Each job may consist of a multitude of functions. For example, a count of treatments performed by nurses as daily routine revealed 105 different types composed of as many as 100 separate tasks required to accomplish the work flow of each.[5] An additional factor of employee complexity in the hospital is the utilization of large numbers of non-pay volunteer persons with whom difficulties of control arise due to their status as "volunteer."

By listing the many services of the hospital we can further see the complexity of the organization. All hospitals have a three-pronged objective: patient care, education, and research. The full development of each results in a highly complex organization. Edith Lentz said in discussing the administrative problems of hospitals: "The medical center has multiple functions. Almost all hospitals do, but the medical center may be seen as an extreme example. A generalization might be made that the more varied the functions of an institution, the more complex the administrative task. . ."[6] The patient-care services that are available vary in complexity from those ready to accommodate the grave severity of an automobile accident to the incidental and routine diagnostic chest x-ray. To fulfill all hospital services requires a battery of complex and expensive equipment. Centralization of this equipment is a necessity if the best care is to be economically within reach of society.

An inspection of the background of those persons and groups which make up the several power authority structures in the hospital adds to the concept of complexity. Harvey L. Smith of the Institute for Research in Social Science at Chapel Hill, N. C., discusses two main lines of authority—lay and professional—in the hospital.[7] Ownership authority and responsibility of the non-profit hospital corporation lies with its board of directors, while professional authority and responsibility lies with the medical staff organization. A multiple responsibility to the board, medical staff, employees, patients, and general society, consisting of direct authority only over hospital employees, lies with the administrator. The duality of controls (lay and professional) is a product of the complexity of the hospital organization.[8]

When viewed by their separate groups, trustees, doctors, and administrators tend to fall into three stereotyped areas. The board of trustees is generally made up of the town's successful businessmen, bankers, and lawyers; people knowledgable of profit-motivated enterprises and seeking the prestige attendant with community service. "It may be seen that to sit on this board means to be in very select company from the standpoint of financial power and prestige. Hospital boards become exclusive clubs—a formalized expression of altruism on the part of the haves for the have-nots."[9]

Doctors, by contrast, are much less knowledgable of business relationships other than "fee-for-service." They are independent contractors in a field exclusively reserved to themselves for judgment. By education and experience, individualism is their guiding stay. The full weight and responsibility for judgment always rests with one person in the practice of medicine: the diagnosing doctor. Formal organization, committee action, and group decision tend therefore to be of negative worth in their eyes.

The administrator's personality and background is not entirely dissimilar with what is found in executive management of industry. In years past, however, the position was filled by one of the senior employees of the hospital or by someone from the community who had nothing better to do. Although functional knowledge and experience in a specific hospital department was a usual preliminary to assumption of the top executive position, the job implied a "second-class" role in the eyes of the medical staff and the board. The tendency today is to require specific training in management in terms of graduate university education, rather than routine training in individual departmental operations. Added to an interest and background in principles of managing organizations is a desire most administrators have for serving society in what they would consider to

be a needed and practical way. They represent the hospital to the community and are concerned with protecting and making the best use of the public's investment in its hospitals. A major challenge of their position is earning the understanding and cooperation of both the medical staff and board of trustees.

The final area of complexity in the hospital organization is in the difficult and unclear evaluation of what really goes on. The attitudes and opinions of the consumer and/or his family are often colored by the emotional nature of his hospital stay. Rational judgments fail and there is no universally valid criteria to measure whether the hospital stay was satisfactory or not. The medical definition of high quality care is equally elusive and difficult to measure. Quality depends upon what the best informed medical judgment would have done in a given case. This in itself is a hindsight consideration that may come too late or have little relevance.

We have now received those areas of the hospital structure which are pointed up by the work complexity. An organization with so much inherent variety and difference creates special problems for leadership.

CONFLICT IN THE HOSPITAL

In continuing to analyze the hospital organization, a third concept revealed is that of conflict. The expression of conflict between individuals and groups in the hospital can be seen through conditions of either open or reserved hostility. Further, I would attribute certain kinds of employee behavior such as professionalization, and status recognition to the internal psychological conflict of the individual. Even in considering the whole organization as a unit, conflict is clearly recognizable in the hospital's relationships with third-party financial agents, licensing bodies, public health departments, and the community itself.

With a variety of different personnel working on a variety of different service functions, conflict between individuals and groups is inevitable. A multitude of different kinds of workers focus on the patient: nurses, dietary maids, nurse aides, lab technicians, housekeepers, orderlies, messengers, and others. Many of these jobs are "dead-end" positions such that the employees can never be afforded the opportunity of either inter-department transfer or intra-department advancement. There tends to be a jealous guarding of the perceived professional qualities and traditional scope of particular jobs. This especially is seen by the registered nurse's usually negative attitude concerning the employment of aides and practical nurses. Whenever members of different groups overlap in function there tends to be conflict. It is not uncommon, for example, that departments question each other's authority in what are often simple areas. (Is it a nursing or dietary function to serve the patients their trays?)

Conflict may further arise within individuals if they are placed and kept in emotionally trying positions or positions in which they are neither skilled nor interested. Nurses, for example, serving on critical patient floors of "Cancer Hospital" in Chris Argyris' study of organizational behavior, were seen to be under great internal conflict due to the high death rate of the patient population served[10]. Conflict arises also in persons who, by virtue of seniority and proficiency, are awarded the higher level positions requiring a great deal of routine paper work and administrative supervision that they dislike and aren't qualified to handle. This very definitely can be true of other hospital departments.

The hospital organization offers excellent examples of professionalization and status-seeking behavior in individuals and groups. There are functional societies organized on a national basis for practically all employee categories: nurses, radiologists, hospital accountants, executive housekeepers, dietitians, and even hospital administrators. Each organization establishes operating standards and codes of conduct and may go so far as to "suggest" in positive terms what sort of "ethical" payment relationships should be adhered to. Hospital employees are often only a part of the membership of these organizations. A dietitian, for example, whether she is employed by a hotel, university, summer camp, country club or hospital, can be a member of the dietitians' association. This attachment to an organization of one's peers in terms of job category and training naturally tends to emphasize the importance of the skills of the job over and above its contribution to the specific employing institution. A hospital is a seed bed of professionalization making special kinds of motivation and providing peculiar personnel problems with the many outside groups striving to be their own "boss."[11]

The need of recognition through establishment and maintenance of traditional status symbols is clearly apparent. Subtle differentiation such as reserved dining areas for visiting staff, house staff, and nurses, and uniforms of different styles and colors, show this. The intern, assistant resident, and resident must wear the proper length white jacket to show his respective educational and prestige level. Similarly, the housekeeper must never wear the blue uniform of the dietary department employee nor the white one of the technician, and the nurse must always wear her particular school cap wherever she may be employed.

A final commentary on internal conflict in the hospital relates to the inter-working of the various authority structures (administration, governing board, and medical staff). John Zugich, in his thesis at Yale, points out the basic instability of the top level of hospital organization. The reasons for instability are (a) ignorance or misunderstanding of duty and responsibility on the part of each, (b) the obscuring of the very reasons for the existence of the hospital arising from the three-way split, and (c) the tendency on the part of each group not to accept the organizational plan and to short-circuit at will. The actual internal structure of the hospital, then, is not the stable unit the administrator often pictures it to be.[12] One group will often be at odds openly or subtly with the others,

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feeling that their respective areas of authority and decision making are being violated. The obvious conflict involved in the statement, "Medical judgment can't be made by lay people," is one example. Another lies in the very fact that the board as a dominant social and economic force of the community is typically more prone to "interfere" in administrative details than a similar board in industry.[13]

In turning to relationships with groups outside the hospital, numerous conflicts are obvious. Financially, the hospital is very dependent upon third-party payment agents such as Blue Cross and government agencies. This dependence is a product of the fact that third parties can "dictate" what, where, and how much they will pay the hospital. If the third party experiences financial trouble, which has happened both in Blue Cross and in state governments, it merely passes this trouble on to the hospital by reducing its payments. Hospitals struggle with the attempt to maintain a break-even operation in the face of traditional public feelings that the hospital should in fact lose money, since it is a charity to begin with. The public expects and deserves the very best in hospital service, yet naturally desires to pay as little as possible for it.

Hospitals have conflicts with outside agencies and the public in areas other than income, too. Licensure, which is controlled by the state government, and accreditation, which is a voluntary program controlled by a voluntary commission, bring outside standard-setting experts into the hospital to make evaluations. This is good, for it introduces incentive for high standards, yet in very few industries, including public utilities, are there so many different outside groups requiring or even suggesting action be taken as there are in the hospital. Medical schools, when conducting a teaching "affiliation" with a large hospital, may tend to overbalance the three basic objectives of the hospital (patient care, education, research) by requiring the hospital to take action strictly advantageous to one area over the others.

Conflict, then, is the third extremely important consideration in describing and defining the hospital. Recognition of the areas of, and reasons for, conflict, with respect to both individuals and the organization as a whole, constitutes another significant aspect of understanding the hospital structure.

COORDINATION IN THE HOSPITAL

The fourth and final concept which characterizes the hospital as an organization is coordination. Methods by which individuals and groups within and without the institution are kept from splintering into a variety of different paths broadly fall under the term "coordination." Much of the internal concept of coordination relates to communication, while much of the external concept of coordination relates to long-range health planning of the community's actual needs for medical care.

The first general principle regarding the coordination of individual and group effort in the hospital is the use of committees. The board, medical staff, and administration, all employ standing and *ad hoc* committees for individual and joint purposes. Certain standing committees of the medical staff, for example, are required by outside regulatory bodies such as the Joint Commission on Accreditation. Other committees are established to take care of specific problems or situations as they arise. Sometimes the routine answer to any hospital problem is "appoint a committee." The function of the multitude of committees present in the hospital structure is to provide communication, understanding, and coordination.

Inter- and intra-departmental coordination fails when vertical communication between workers and their department heads is blocked by inadequate leadership performance of intermediate supervision. The head nurse, for example, who is afraid to "lose face" with her supervisor or department head may "forget" the suggestions or recommendations of her staff. This difficulty is, of course, equally applicable in any kind of organizational scheme, but is greatly accentuated in the hospital structure. Here, many group leaders are little more than those working foremen who have historically filled in for inadequate workers when needed and were never given the

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TOPICS Announces HA Editorial Competition

All graduate students in hospital administration are invited to enter HOSPITAL TOPICS' third annual editorial competition, Gordon M. Marshall, publisher, has announced.

Prizes of $100, $75, and $50 will be awarded.

Subject matter for articles may be selected from the entire field of hospital administration and operation. Entries will be reviewed by nationally known authorities in the hospital field, and will be judged on the basis of timeliness, writing quality, content, originality, and extent of research.

Any paper written as a part of the student's work in his course is eligible for submission in the contest, if it has not been published before.

All academic and resident students of the recognized graduate schools are eligible to participate.

Deadline for entries is June 1, 1961.

Entries should be submitted directly to:
Marie Jett, Editor
HOSPITAL TOPICS
30 W. Washington St.,
Chicago 2, Ill.

And a reminder: students may subscribe to HOSPITAL TOPICS at the special rate of $2.25 a year (half-price).

Are nursing personnel working productively and at their proper skill level? A nursing activity study will give you the answer. The filmograph, *How to Observe Nursing Activities*, with accompanying manual, will show you how to conduct the study.

Film, Manual New Self-Help Tools in Nursing Study

The nursing activity study employs the research technic of observation to help hospitals find out how nursing personnel actually distribute their time.

The observer is the key figure in a nursing activity study. She locates each staff member once within every 15-minute time period. On the observer's record form she records for each member both the area and skill level of participation. Although the observer is a nurse, she is not dressed as such so that patients will not expect her to provide care.

Completely automated hospitals aside, the nurse is still one of the essential ingredients in the care of sick people. No longer seen as a lone, valiant Florence Nightingale, the nurse today is a "team member"—one part of the life-saving process in which machines and drugs can play as large, or larger, a part than she can.

Along with the changing role of the nurse, the hospital has changed too. From an often-unsanitary old building housing mainly the poor and unwanted ill, it has become a complex, efficient structure—accepted as a mainstay in American culture—spending several billion dollars a year and serving more patients than at any other time.

And yet patients complain of brusque "impersonalization" in the hospital. "Nobody seems to really care." "They don't know I'm here." Harried nurses often feel they spend too much time in tasks which less-specialized personnel could do and, as a result, cannot devote to the patient the attention which he rightfully deserves—and they want to give. And administrators—cognizant of the nursing shortage today and eyeing the current figure of 224 hospital personnel employed to every 100 patients—wonder what to do about the dilemma.

"If many hours of nurses' time are being diverted from their true purpose and spent in work others can do, this trend must be corrected. The problem is how to conserve professional nursing skills for their highest use—and bring the nurse back to the patient." This statement was made by Edwin L. Crosby, M.D., executive director, American Hospital Association, in his foreword to *How to Study Nursing Activities in a Patient Unit*, a manual designed to help hospitals solve some of their nursing problems.

"The first step in solving the problem is to analyze

(*Continued on next page*)

The observer selects personnel to be observed.

Coding of activity must reflect the intention behind the action. Flower arranging, as such, is at housekeeping skill level; but if the head nurse's intention is to observe patient condition, activity is at head-nurse level.

it," Dr. Crosby wrote. "How many non-nursing duties are being assigned to nurses? How much time are nurses spending on unnecessary clerical work, housekeeping details, and daily routines that clerks, nursing aides, and others can carry on? Are some units better organized in this regard than others?"

The manual, used by many hospitals since it was issued in 1954 by what is now the Division of Nursing of the U.S. Public Health Service, has recently been supplemented by a two-part black and white filmograph which demonstrates the technic of observation.

Together, the manual and filmograph provide practical tools designed to find specific answers to the questions raised by Dr. Crosby, by gathering the information needed to plan better staffing of inpatient units.

A pictorial explanation of the information covered in the manual, the film is intended as a self-help aid in conducting nursing studies. Since its release last May, it has been in such demand that would-be borrowers may have to wait as long as three months for a copy, the Division of Nursing warns.

Representative scenes from the filmograph are shown on these pages. Used in a study of nursing activities, the method of observation advocated provides for a sampling of the activities of each category of personnel every 15 minutes.

These intermittent observations will not give a complete picture of the number of tasks, or how often they are changed. The observer technic does, however, provide reliable information about the activities that consume the most time; the kinds of activities performed by each category of personnel; and a distribution of types of activities by periods of the work day in which they occur.

The method requires three steps:

1. Taking samples of activities by instantaneous observation of the activities of all personnel on the unit every 15 minutes.

2. Tabulating the sampling of activities.

Passing of food trays, even by an R.N., is at dietary level.

Accompanying a patient to x-ray usually does not require nursing-aide skills. This activity is ordinarily at messenger level, even though it is performed by a nursing aide.

Telephone conversations are among the less simple activities to record and code. The observer waits until conversation is finished, then asks the person to whom she had been speaking, and why.

Sometimes the observer cannot locate every member of a unit during a 15-minute period; she waits until she next sees the person to check on her activity during an earlier 15-minute span.

3. Analyzing the tabulations.

In this last point lies, perhaps, a specific course of action for the administrator. Analyzing the study may bring solutions to some problems; certainly it will uncover many pertinent facts. As the manual warns, collecting and tabulating facts is a sterile effort if no attempt is made to analyze them and discover how the information may be used. The dark recesses of storage areas in some hospitals are literally bulging with statistics collected and never used. "Nor should the information be used to advance the pet theories of a few. The investment of time and money should have a definite goal."

Use of the observer method in the nursing study does not necessarily entail discovery of a way to reduce the hospital budget, but it may show how to make a more realistic allocation of the budget among the departments. Certainly the "flight from the bedside" refrain can begin to be confirmed or refuted by careful analysis of the study.

If all those involved in the study take an active part in planning and carrying it through, the hospital will find it easier to make any changes agreed upon as a result of the study. Members of the nursing department who are proud of their contribution to the service given patients will also take pride in improving that service. After all, to quote Dr. Crosby again, "The ultimate goal to give every patient the finest possible care . . . can be accomplished only when the best nursing care, as well as the best medical skill, is provided."

To obtain the filmograph, "How to Observe Nursing Activities" (the manual accompanies the film), write to Film Librarian, Audio-Visual Unit, Communicable Disease Center, Public Health Service, Atlanta, Ga., specifying a preferred and an alternate showing date. There is a large waiting list, so please ask well in advance of your scheduled showing.

Here is an opportunity to observe two staff members simultaneously during one observation period. Since they are exchanging information about a patient, they are both working in the same area (area 13), but each participates at her own skill level.

"How to Observe Nursing Activities" was produced under the direction of Apollonia O. Adams, chief, Division of Nursing, U. S. Public Health Service.

Employee Training Grievances and the Administrator

By Robley D. Stevens*

Proper selection and training of personnel is often the first step in avoiding employee grievances. Specific actions in intra-hospital relationships is another aid. In both, the administrator is the key figure, and his behavior of prime importance.

The ability to solve employee grievances is one of the requisites of good business management. After all, the day-to-day operation of your hospital involves all types of workers, and personnel problems are bound to arise. Whether these problems deal with assignment of jobs, transfer and promotion, wages and hours, disciplinary action, or other matters, they all require some knowledge of the direction of people.

The success of your hospital in getting the work done is determined to a large degree by the willingness of your employees to do their jobs, and their eagerness to do them well. Hospital personnel must work in a coordinated atmosphere of trained and experienced people whose interlocking efforts reflect the unusual breadth and depth of hospital functions. Hence, directing people is much more than a matter of communication. It is the process of weaving people and their performances into the hospital's operational system.

If the greatest possible values are to accrue from the efforts of the hospital employees, awareness and continuous emphasis on problems of human relationships are necessary, and a coordinated team effort to accomplish the end objective of hospital care — the restoration of the patient's health — is essential. Yet a close working relationship is possible only when all employees and all levels of supervisory management understand the functions, responsibilities, and authority of each person, department, and division of the hospital.

Selecting and Training Employees

Perhaps the best place to begin is in selecting and training your employees. This is of vital concern to every hospital; there is too much at stake to neglect the matter of developing to the fullest the potentialities of the human resources available to your hospital.

Proper treatment of such problems as employee selection, recruitment, promotion, training, and organization, is ultimately as pertinent to the functioning of the hospital as is the acquisition of suitable diagnostic facilities. Indeed, the increase in efficiency of services resulting from solution of employee problems may well be commensurate, in terms of patient welfare and rehabilitation, with the technical advances in the use of scientific medical equipment.

Proper utilization of employee skills is essential both to the quality of service rendered by your hospital and to the morale and efficiency of your employees. The fewer employees you have, the greater responsibility each one has to carry. Therefore, you must spend time and careful thought on selecting and training them properly, because they must deliver competency and skill.

Unless you have a clear picture of what the employee's job consists of, and what he is required to do, you can't develop a sound approach to your own hospital training. A written job description will clarify the employee's functions. This description is a diagram of the duties, responsibilities, skills, and requirements of the job. It should be concerned with the job itself, not with the individual. A job description will help you in selecting, training, rating, paying, transferring, and promoting your hospital personnel.

To break down your employee's job, first divide it into functional classifications. Select a typical employee in your hospital and prepare a job description of his duties. Determine the degree to which your trainee should study each area. Provide for further training through hospital meetings. Follow up on your employee and find out if he is actually performing on the job.

One practical way of appraising your employees — new or experienced — is with a record that lists each of the qualities required, with varying degrees of achievement for each. By looking at this record, you can easily see each employee's qualifications. In addition, the need for uniformity of job titles and functions may well exist in your hospital.

*Management consultant, Washington, D. C., former official representative, U. S. Department of Labor.

Your employee should understand your hospital: its history, nature of organization, operating methods, general policies, and immediate and long-range objectives. He must know the routine activities you assign him. He should also understand his own responsibility to you, the employer.

Where should the employee be trained? Hospital on-the-job training has the advantage of keeping a prospective employee near you so that he can pick up valuable knowledge which cannot be found elsewhere. Whenever possible, it's good to combine this with academic training in order to gain the confidence that goes with the experience of both.

When you feel that a new employee has had enough experience to develop an understanding of your hospital administration, let him work. But before he starts, have one long talk with him to assure yourself that he knows what you expect and that he is qualified, as fully as time and training have permitted, to do the job well. After he has begun the job, you will still want to give him close supervision and guidance, for even an experienced worker needs recurrent training.

"Can Do" and "Will Do" Factors

"Can do" and "will do" traits have much bearing on almost every hospital job. The "can do" factors include job knowledge and skill; mental alertness; health and physical condition; and verbal expression (ease, clarity, logic, and an organized manner).

"Will do" factors include job motivation (the habits, motives, and drive to work diligently and productively in the job); stability (remaining in a given situation for a reasonable length of time); perseverance (in spite of difficulties and opposition); self-reliance; cooperation; competitiveness (accepts activities in which you can compare his record with that of others); loyalty (puts hospital interests above his own); ability to get along with people; leadership (capacity to organize work); acceptance of responsibility; emotional maturity, and attitudes (toward the work, the hospital, and the patients).

Hospital-Employee Relationships

There was a time when the relationship between hospital and employees was relatively simple. This is not the situation today. Hospital work groups and operations are larger than ever before. And along with this growth in size has come an increase in specialization. The hospital has to encourage the kind of work climate that will stimulate the employee to want to produce.

However, occasional problems will always arise. If you are to keep your hospital operating at maximum efficiency, you must be alert to recognize the symptoms of employee grievances, and you should try to analyze the causes that give rise to those symptoms. Reduced productivity, poor quality work, loafing on the job, insubordination, lack of cooperation, may be the employee's way of unwittingly showing he has a grievance.

It is important you recognize that, regardless of the way the problem appears to you, the way the *employee* feels about it should dictate the amount of consideration to be given the matter. If you give an employee the brush-off, or make too light of the complaint, you are merely adding fuel to the fire.

It is important to avoid bypassing in your hospital. In most cases it can be avoided by building up faith, confidence, and trust in the employee's mind. You can accomplish this by being interested in his attitude, anticipating the annoyances that are bound to crop up in any job, by trying to learn the personal characteristics of different employees and their customary reactions to various circumstances and supervision, and by exercising patience and objectivity, including some toleration of people, even under the stress of fundamental disagreements.

It is not easy for one who has to live with the complaining employee to be wholly objective at all times. But you should give him thoughtful attention, listen to his story without interrupting him, and try to keep the discussion centered on facts rather than on opinions which might give rise to needless argument.

You can make your job easier by forming judgment from what you *see*. Whatever the solution, it should reach the heart of the problem, remove the cause of the grievance, and have no effect upon the work of other employees in your hospital.

There will be times when informal discussions fail to resolve a grievance. There also will be times when conditions require management to take some adverse action against the complaining employee. In order to keep the record straight, to establish the facts and discourage petty complaints, you should see that the employee's grievance is put down in writing.

It is always more desirable for your hospital, as a matter of principle, to handle employee grievances directly, rather than through an outside third party. Nevertheless, it is common practice nowadays for grievances to be arbitrated. Arbitration is a peaceful, voluntary method of settling grievances, used only after both parties involved have failed to reach a solution. After a hearing at which both parties submit their evidence or claims, the arbitrator makes a decision and issues an award which the respective parties have voluntarily agreed in advance to accept.

There are two unvarying elements which must be present in arbitration. First, the arbitrator must be impartial. Second, there must be a final and binding decision embodying the judgment of the arbitrator, not merely an attempt to bring the parties together in their own settlement. The decision must be within the authority granted to the arbitrator.

Experience shows that a great many grievances which go all the way to arbitration might have been settled easily before that, if the hospital administrator had worked toward preventing grievances, or at least reducing them to a minimum.

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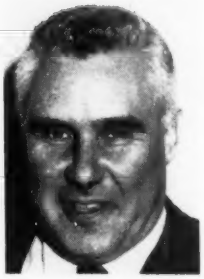

Consultant's Corner

By John G. Steinle

Q. Should the radiologist and pathologist be permitted a vote on the medical board?

A. It is assumed that the medical board constitutes a policy body of the medical staff. In a number of situations the medical board is composed of the officers of the medical staff and the chiefs of the various services. In some instances the pathologist and radiologist sit with the board in an **ex-officio** capacity. In other instances they are members of the board by definition.

Both the pathologist and the radiologist are in a most enviable position with regard to ascertaining and evaluating the general quality of medical care in the hospital. Anything which would restrict or hinder the effective use of these specialists in influencing medical care should be discouraged. It is, therefore, recommended that the pathologist and radiologist be accorded full membership on the medical board.

Q. Is there a good method of controlling drug floor stocks? Is this a major factor in hospital costs?

A. I consider the control of floor stocks one of the most important problems in the hospital field. Maintaining an adequate stock of drugs is necessary in order to avoid loss of time by nursing and other personnel going to and from the nursing station and the pharmacy. However, an adequate floor stock is usually accompanied by substantial inventory losses and failure to effect charges for the drugs dispensed.

The costs of drugs in acute general hospitals average approximately $285 per hospital bed per year. This does not include the salaries of the pharmacist, overhead, cost of processing, and other departmental expenditures.

I have never been completely satisfied with the results of floor stock controls. The system which has proved most effective and which provides a substantial variety of drugs most commonly prescribed at the nursing station requires that an order slip be prepared in duplicate for each prescription. One copy goes to the business office and one copy is kept on the nursing floor and used as the basis for replenishing the inventory. Even though this is the best system, there still is a slippage of approximately 25 percent.

Equipment is being developed that will use the vending-machine principle for dispensing drugs. The drug in the proper dosage is released by the insertion of a card, and a record for billing purposes is imprinted in a roll in the machine.

We shall continue to observe the development of this equipment and shall make further observations as indicated in this column.

Q. Do you consider it feasible for a hospital to either rent its linens or, if it owns its linens, to purchase laundry services?

A. Each situation has to be very carefully analyzed and a decision made on the merits of the individual case.

The costs of line rental are usually substantially higher than the cost of purchasing laundry services if the hospital owns its linens. In an analysis of a specific situation, we found that it cost approximately $150 more per bed per year to rent linens than it would have cost if the hospital had owned its linens and had the laundry done by a commercial organization. Approximately $100 per bed each year would be saved if the hospital had its own laundry.

In comparing quotations for either a linen service or a laundry service, care must be taken to include all costs. For example, some commercial laundries give the hospital a good price on flatwork and make their profit on the finished items, which represent from five to 15 percent of the total laundry work load. In estimating costs for comparative purposes one should also include the costs of accounting and of maintaining the records.

Problems in maintaining adequate inventories have been encountered by some hospitals which have either rented the linens or had the laundry done by a commercial organization.

On the other hand, the determinations of the hospital laundry's costs per pound or per piece should be very carefully prepared. Often the hospital does not have an effective cost accounting system, and all of the costs are not included.

Q. In planning for any hospital, how many pounds of laundry per bed should be estimated?

A. Perhaps the best method of determining laundry load is to use the following formula: 14 pounds per bed per day plus 25 pounds per surgical procedure and delivery. In arriving at work loads it should be emphasized that seven days of laundry must be processed in five work days.

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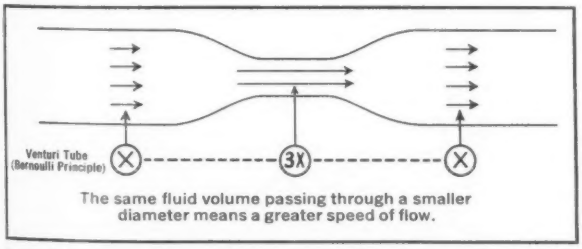
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Review of Hospital Lawsuits

By Leo T. Parker, Attorney at Law

● LEGAL RULES FOR AVOIDING PITFALLS

Recently I traveled in several states, and talked with many TOPICS readers. Several important legal questions and problems were discussed. I have made special efforts to locate higher court cases which answer certain of these legal questions directly. Presented below are of some of these legal questions in simplified form for the benefit of all readers, and citations of leading higher court decisions which verify my explanations of law.

Nervous Patient

A few weeks ago a higher court laid down an important legal rule as to the duty of hospitals in caring for nervous patients. This rule is: a patient entering a hospital operated for treatment and cure of nervous disorders is admitted under an "implied" obligation that the hospital officials and employees will exercise such care for his safety as his condition may reasonably require. The degree of care must be in proportion to the ailments of the patient, and furthermore the question of whether such requirements have been met by the hospital officials and employees must be decided by a jury.

For example, in *Quick v. St. Mary's Hospital, 102 N. W. (2d) 36,* it was shown that St. Mary's Hospital specializes in the care of patients suffering from mental and nervous disorders. For three weeks Quick was a patient in the hospital for treatment of a marked paranoid condition. During this time he was given a series of electroconvulsive shock treatments. Quick sued the hospital for heavy damages, alleging it was guilty of negligence in the care afforded him because its employees failed to provide adequate and necessary safeguards for his protection and that, as a result, he fell from the hospital bed to the floor and suffered a fracture of the right shoulder.

During the trial testimony was given in detail as to the electric shock treatment Quick was administered, the procedure followed and its effects.

This case was tried without a jury and the lower court held the hospital not liable. The higher court reversed the verdict, holding that an enforceable decision must be rendered by a jury, after it listens to all the testimony. This higher court said:

> **"Plaintiff (Quick) here was attended daily by defendant's nurses and nurses' aides, who not only had access to the hospital record but also had their personal observations of plaintiff's conduct, irrational and otherwise. Certainly defendant hospital is charged with knowledge thus obtained by its trained personnel and written into the hospital record by them and by the doctor and interns attending the plaintiff. The defendant therefore, was charged with knowing the probability that plaintiff, due to his confused state of mind, might cause harm or injury to himself.**
>
> **"The duty imposed on the hospital in the instant case extends to safeguarding the patient from dangers due to the patient's physical and mental incapacity as indicated upon his entry and as could thereafter reasonably be anticipated in his case due to the progressive deteriorating effect resulting from the repeated shock treatments.**
>
> **"It is not our province to indicate how this case ought to be finally decided. Clearly, plaintiff received the injury complained of while a patient in the hospital. The differences and the conflicts between the testimony of the several witnesses are clearly for jury determination. Where the evidence is conflicting, it is the duty of the court to submit the case to the jury."**

Not Payable Hospital Care

A majority of hospital officials and employees have the habit of asking every prospective patient one stereotype question: "Do you have hospital care?" With an affirmative answer, the official feels certain of collecting for services to be rendered.

Last month a higher court very distinctly indicated that an affirmative answer to this question is not always positive assurance that the insurance company which issued the "hospital care" policy will pay for hospital services.

For instance, in *Cottrill v. Michigan Hospital Service, 102 N. W. (2d) 179,* the testimony showed that the Michigan Hospital Service writes insurance contracts providing hospitalization benefits and care in accordance with the Michigan Blue Cross plan. It issued to Cottrill a hospital care certificate which contained the clause, "Each member is entitled to hospital service for a maximum benefit period of thirty (30) days . . . for each period of hospital confinement, or for successive periods of hospital confinement separated by less than six (6) months. Such member will again be entitled to a maximum benefit period of thirty (30) days only when there has been a lapse of at least six (6) months between the date of last discharge

(*Continued on page* 65)

(*Continued from page* 62)

from a hospital and the date of next admission."

Cottrill was hospitalized for the period beginning August 12 and ending August 27, 1956, and from October 9 to October 24 of the same year, an aggregate of 30 days. The Michigan Hospital Service paid benefits pursuant to the terms of the certificate. Within the ensuing six months' period Cottrill was a patient in a hospital from February 27 to March 11, 1957. For such period the Michigan Hospital Service did not pay benefits and presumably no request therefore was made. In less than six months following discharge from the latter hospital, Cottrill was again hospitalized at LaGrange, Ill., from August 13 to September 8, 1957.

The Michigan Hospital Service denied liability for payment of benefits in the last hospitalization on the ground that under the terms of the hospital care certificate Cottrill was not entitled to benefits because less than six months had elapsed from the time of the last preceding hospitalization.

Cottrill argued that the above clause had reference to the date of last discharge from a hospital for which benefits were paid under the hospitalization care certificate. On the other hand, the Michigan Hospital Service insisted that the six months' period must be interpreted as it reads, and that treatment in any hospital, whether or not benefits are paid therefor, bars the granting of subsequent benefits to Cottrill for hospitalization during the period mentioned.

The higher court held that the Michigan Hospital Service is not liable for payment of any part of this hospital bill, saying:

> **"Had it been intended that the reference to the discharge meant that the prior hospitalization entitled the insured to benefits under the certificate, it may be assumed that the intent would have been indicated in appropriate language in the policy."**

Hospital Employee Is Personally Liable

I received this legal inquiry from a reader: "Is a hospital employee who performs a negligent act personally liable in damages to the injured patient?" According to a recent higher court decision, any hospital employee may be held personally liable for his negligence which results in an injury.

For example, in *Waters v. Anthony, 40 So. (2d) 316,* testimony showed that a person was seriously injured when he fell on a dangerous floor. The injured person sued both employer and employee for $20,000 damages. The higher court awarded the injured person $15,000, and ordered the employee to pay $7,500, and the employer to pay $7,500. The court said:

> **"Lackey (employee) owed a duty to exercise due care and if he was negligent in this respect proximately causing injury to him, he and his employer were jointly liable. . . . It was his duty to use reasonable care so as not to cause injury to third persons exercising their lawful rights."**

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EMPLOYEES AND ADMINISTRATOR
(*Continued from page* 59)

The Administrator's Goal

One advantage of the job of hospital administrator is that it continually offers challenging problems. Any action you take which results in a correct solution to a problem represents a growth in your personal stature. Everything you do and say adds to your employees' opinions of you as a person, and influences the way they respond and react to their jobs.

Hospital personnel are happier and work better when they have a feeling the administrator is interested in them. If your employees don't like the way you do business, you may face problems. This is one of the mainsprings in the current drive to humanize hospital-employee relations. It is through such good personal relationships that you are able to settle more employee grievances.

The administrator is a person who makes things happen in the hospital, through the efforts of other people. In so doing, he is primarily concerned with obtaining results. His objectives should be to improve the efficiency and economy of hospital operation, develop the work-force, assist employees toward achieving their highest potential usefulness, and motivate them to work, and solve grievances in the hospital.

There are few born hospital administrators; most are developed. The conventional good traits—initiative, drive for self-improvement, intelligence, curiosity, attention, courage, leadership, and a capacity for hard work—play a strong part in your work. But you, the individual, must make use of these traits.

"8...7...6...5...4...3...2...0; change shifts!"

Hospital Accounting and Statistical Problems

By David H. Tarlow, C.P.A.*

Q. For a number of years this hospital has been funding a reserve for depreciation and replacement which, as an element of expense, we derive as income from our patient charges. Up to now I have always considered that when capital items were purchased, those of a replacement nature would be charged to this reserve, but that when new capital items were to be bought these should be charged to the general fund, which is, of course, derived from gifts, bequests, and so forth.

Recently the question has been raised by board members as to whether the reserve for depreciation and replacement should not be used for the procurement of new capital items. During my administrative experiences I have heard the statement many times that it was morally right and ethically proper to charge patients for their share of the replacement of capital equipment and facilities in the hospital which they have used and in which they share a depreciation expense, but that new capital items are not properly chargeable to patients. This theory seems to be based on the idea that the community, philanthropy and other sources originally should provide the buildings and equipment and that the patient should not be expected to pay for them through his hospital bills. This would seem to apply to whatever new equipment and facilities – not those of a replacement nature – are procured from time to time.

It would be extremely helpful to me if you would comment on the above premise and let me know what reference material or authoritative sources are available to support or refute this theory. If you can quote any authoritative authors on this subject and can assist me in developing a policy for board consideration in this area, I will be more than grateful.

A. This question has been discussed at most accounting institutes for the past two decades without a complete unanimity resulting. To the best of my knowledge, there is no hospital text material available which authoritatively develops a thesis regarding depreciation and the use of its related reserves.

As you well know, it is only recently that reimbursing agencies have accepted even token depreciation as an element of operating expense. All too often depreciation is only a book figure and is not funded. Since reserves for depreciation are developed so that a facility may be maintained at its required degree of utility, it would seem that any disbursements made from the reserves to maintain such a status are perfectly in order. It does not appear germane to me whether an item is replaced after a number of years because of wear and tear or whether a new item is purchased because of obsolescence after short usage, or because of a new idea of diagnosis or therapy.

If the trustees wish to go back to the community for capital funds every time they need a new item, this certainly is within their power, but failing this, it is the duty of the board, in my opinion, to bring the best possible medical and surgical care to the community with available resources. Therefore, if reserves are available for needed equipment, it would appear that they should be used.

Q. We would like to know the term most generally used to designate the office and officers in charge of the offices that handle:

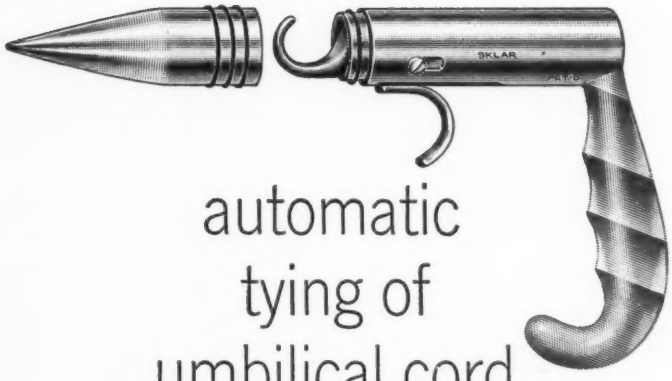
1. Patient accounts, which includes billing and receivables, credit and collection, cashier.

2. Accounts payable for vendor, payroll, general ledger accounts, balance sheet, special cost and statistical studies, statements of financial picture, etc.

I have heard No. 1 referred to as the business office and also as the office of patients' accounts. I have also heard No. 2 referred to as the business office or the accounting office. Which are the most generally used terms, and is there a standard classification?

A. All of the functions listed above are usually under the direct supervision of a controller. In larger hospitals, some of his responsibilities are delegated to an assistant controller. With respect to the title of business office, one might also state that the functions enumerated above are all part of that office. It is assumed that your hospital has two separate areas and authoritative lines of responsibility for Sections 1 and 2. Based on such assumption, you could call Section 1 the patients' accounts office, and the person in charge, the director of patients' accounts. Section 2 might be called the general accounting office, and the person responsible for that office, the chief accountant.

*Senior Partner, D. H. Tarlow & Co., Hospital Accountants and Auditors, New York City, N.Y.



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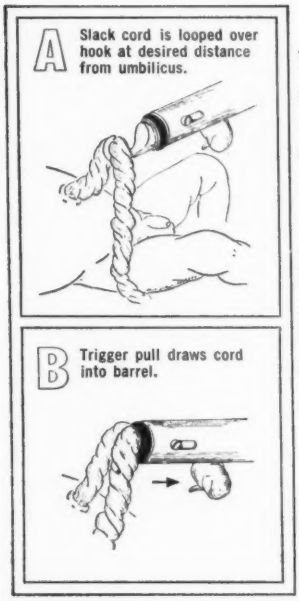

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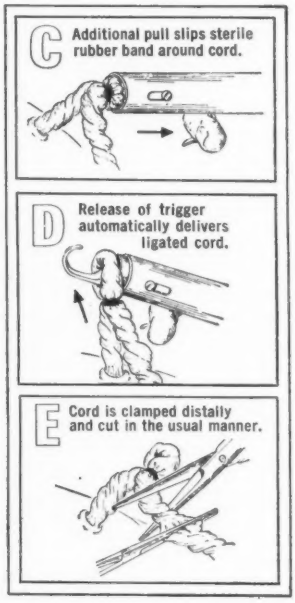
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1. Gravlee, L. C., and Jones, W. N.: Obst. & Gynec. 15:43 (Jan.) 1960. * U. S. PAT. NO. 2,942,604.

Pediatrics

Research is Communication — "What We Give the Children in Usable Form They Have First Given Us in Confused Form"

Part II

By Ellen L. Davis

In Part I of this article, published last month, it was noted that the credo of The Training School at Vineland, N.J. "Happiness first . . . all else follows" –was first put into words nearly 70 years ago. It is still the credo, still the keystone, for without it all else falls of its own unsupported weight. However, the school does not *assume* all else will follow; it sees that it does through education, work, responsibility and goals, all geared to the individual capacities of the retarded child, and all blended and bound together by compassion.

Research, the fountainhead of the knowledge on which The Training School's way of life is based, had its first impetus in the old F-M Club, whose charter members were Edward Ransom Johnstone, then superintendent of the school; Henry H. Goddard, of the department of psychology, Pennsylvania State Normal School at West Chester; and Prof. Earl Barnes, well-known Philadelphia educator. The three were returning from a meeting on child study, and in the course of an engrossing discussion, Johnstone suggested it might be mutually profitable and enlightening to get together regularly, and offered The Training School as a meeting place.

Enlarged to a group of eight or 10 men, the club started meeting regularly in 1902. Research was the all-absorbing subject to these men, and when the school approved Johnstone's recommendation for establishing a scientific laboratory in 1906, one of them was selected to head it. Dr. Goddard, his sabbatical year due at his own school, was persuaded to spend it at Vineland.

On arrival, he surveyed the desk, several chairs and a couple of empty shelves in a small second-story room in one of the workshops. This was his office; he put on his hat and strode out across the fields to find his work. He turned his brilliant mind to the scientific observation of mentally retarded children as they worked, played and learned; he opened his heart to the understanding of their language, so poorly expressed in words, but so eloquently in gently lingering eyes and clinging hands.

Dorothy Baker, M.D., staff psychiatrist, talks to one of the youngsters of the school to decide her treatment. It may be regular psychotherapy (talking), play therapy, medication. The latter are used to help the child become more adaptable and comfortable.

Dr. Goddard stayed at The Training School for 12 years, laying the foundation for the monumental pioneering work of the institution. In 1907, he went to Europe to acquaint himself with the psychological research being done on the continent, and came upon the first published work of the French scientists, Binet

Above, Carol Wescoat works in the well-stocked drug room of the infirmary. There is daily sick call; two 12-bed wards for inpatients.

Joanna Presti, above right, is laboratory technician in the infirmary. Food specialists and dentists hold weekly clinics for the youngsters.

and Simon, on a "Measuring Scale of Intelligence." He brought back to Vineland a valise full of papers and a copy of their publication, not yet translated from the French. This, together with the second part of their work, published the following year, was translated into English by Elizabeth S. Kite, social investigator, and research worker at the Vineland laboratory.

In 1908, Dr. Goddard's first article on "The Binet-Simon Tests of Intellectual Capacity" was published, and was gratefully received as a bridgehead in the field. Though the efforts of Binet, the psychologist, and Simon, the psychiatrist, had not attracted much attention in their native land, the reception in America under the impetus given it by Dr. Goddard was instantaneous and enthusiastic.

The publication marked the beginning of standardization of the I.Q. tests, one of the basic goals the field had been striving for, and was called "something concrete, something mathematically exact, something with prognostic value and something that did not require the art of the mastermind and the long-time observation of the skilled clinician."

Its adoption by public school systems was rapid. It had a major influence on the growth of special classes in public schools; it revolutionized many educational methods.

But quick as Dr. Goddard was to recognize, and make available for utilization, this more accurate diagnosis of mental retardation by standard methods, he was equally quick to destroy false hopes that it could lead to a cure. In a paper presented at the 1913 meeting of the American Association on the Study of the Feeble-Minded, he said: "We may conclude that as a rule, feeble-minded children are trainable but not improvable in intellectual capacity." This statement, which subsequent research has generally verified, was a rude shock not only to the association but to the entire field.

In the early days of the laboratory, Dr. Goddard applied the observational and questionnaire methods of investigation. These methods were supplemented by the invention of laboratory apparatus for the objective measurement of sensory-motor coordination and by the construction of tests for the so-called higher mental processes.

In 1910, Dr. Goddard proposed the term "moron" to identify a higher grade of defective, thus continuing his work on standardization. Accepted by the American Association for the Study of the Feeble-Minded, it did much to clarify the indiscriminate, ofttimes synonymous usage of classifications, and the terms idiot, imbecile, and feeble-minded.

In 1912, a book by Dr. Goddard appeared, titled *The Kallikak Family . . . a Study in the Heredity of Feeble-Mindedness,* which was the culmination of his many works on heredity. Based on investigations in the pine barrens of southern New Jersey, where a hermit-like group of "pineys" lived, it showed how a family "clean and clear from earliest colonial days" became contaminated about the time of the Revolution by mating with a feeble-minded stock, giving rise to six generations of impaired offspring.

But just as Dr. Goddard proved his scientific flexibility and integrity when he limited the potential of the Binet-Simon tests, Dr. Walter Jacobs, present director of The Training School, emphasized the limitations of the Kallikak study in his publication, "New Hope for the Retarded Child," in 1954.

"Until comparatively recently," wrote Dr. Jacobs, "it was generally assumed that 60 percent to 80 percent of all mentally retarded persons had inherited this condition. The Kallikak family provided a clas-

sic picture of the mentally retarded which became so entrenched in people's minds that it is difficult today to impress anyone with an understanding of other kinds of mental retardation.

"More recent studies have brought to light ample evidence to prove that more than half of all cases of mental retardation come from causes which have nothing to do with inheritance, including such types as mongoloids, cretins, hydrocephalics, most microphalics, and others more readily recognizable because of accompanying physical signs.

"Many of these causes involve children of normal or superior parents, children whose reduced mental capacities are the result of brain tissue damage, or atrophy of such tissue, or other brain damage. It can happen to children of subnormal parents, too, but the fact that large numbers of normal parents are involved is profoundly important."

Divisions of psychopathology, biochemistry, and neuropathology were added to the Vineland research department in 1912, with a division of medical research to come later.

The existence of the research laboratory made possible the meeting, at The Training School, of a group

A technician runs an EEG examination on one of the boys at the school. Such an examination is part of the routine evaluation of all the youngsters, and the school also makes this service available to private physicians of the South Jersey area.

of psychologists, members of the American Psychological Association; a group from the U.S. Army; and Training School staff members for the devising of Army intelligence tests which played an important part in World War I. It was the first time in history that an entire army was to be tested, and the tests also had a far-reaching influence on general intelligence testing in public schools and in classification of personnel in industry.

Of the undertaking, Dr. Goddard later wrote: "The knowledge devised from testing of the 1,700,000 men in the army is probably the most valuable piece of information which mankind has ever acquired about itself. The information has been hard to accept. We could not believe it. It was thought the tests were wrong, but more than a dozen years of experience,

Betty, one of the older residents of the school, waits at the infirmary for relatives to call for her. She is vacation-bound, and her time away from school will be a valuable test period for her ability to adapt to outside surroundings and her own family.

criticism and testing the tests have strengthened their validity rather than weakened it. There is no longer any doubt about the facts."

In 1919, Dr. Goddard was succeeded by Dr. Stanley D. Porteus, anthropological psychologist from Australia. Porteus, with his maze tests, his social, educational and industrial rating scales, his anthropometric and anthropological studies, initiated another epoch of research at Vineland, contributing heavily to the more accurate appraisal of children's capabilities and their developmental progress.

He collaborated with Alice Morrison Nash, director of the educational department and currently, after 60 years on the staff of the school, its educational consultant, on studies on the social and educational correlation of mental age and behavior.

In 1925, Dr. Edgar A. Doll, who had been assistant director of research under Dr. Goddard from 1912-1917, returned as director of research. His most important work was the Vineland Social Maturity Scale, brought out in 1935, which remains a basic tool in the field. Following Dr. Goddard's lead, he also pioneered in classification systems for institutional populations, and many aspects of worldwide penal systems of classification began with his work.

The monograph, "Mental Deficiency Due to Birth Injuries," in collaboration with Dr. Winthrop Phelps and Ruth Taylor Melcher, opened the door to hundreds who began work on this phase of mental retardation.

The entrance into the brain damage and cerebral palsy era, inaugurated by Dr. Doll and his colleagues in 1928, and continuing as a major laboratory project until 1941, ranks as one of the most significant periods of scientific research and development in the history of the field of mental retardation.

In 1934, Dr. George Kreezer began work under Dr. Doll in what was to become known as electroencephalography. At this time, the use of motion pictures for training and study was also introduced.

The important link of the Training School at Vineland to national and international development of special education came about in 1903-04. The pioneers were Mr. Johnstone, Dr. Goddard, and Alice Morrison Nash. After extensive planning, the first

session of the "summer school for teachers" was held, based on one week devoted to the general subject of feeble-minded and backward children; one week to causes and classifications; one week to the sociological side of the questions and methods of caring for this class; and four weeks to methods, training, discipline and kindred subjects.

Five students comprised the first class, and a fee of $25 was charged. In 1909, the school had grown to over 30 students from throughout the nation. In 1911, a short course for physicians was held, and Dr. Goddard also lectured on teacher training, with clinics at New York University.

In the same year, the New Jersey legislature passed an act requiring that "each board of education in the state ascertain how many children are three years or more below the normal grade in public schools, and that each school district in which there are 10 or more such children establish a special class or classes for their instruction. This was followed by the Mental Deficiency Act of 1913 in England and the Ontario Auxiliary Act in 1914.

In 1921, Lehigh University affiliated with The Training School and inaugurated courses in its extension department. In 1928, the same arrangement was made with Rutgers University and, in recent years, with Temple University.

Mr. Johnstone's successor, Dr. Walter Jacob, has carried on the traditions. His primary objectives and successes have been in building the professional staff and programs, guiding long-term master development, planning satellite units to meet the needs of specialized services available nearer metropolitan areas, establishing the speech department and clinics, interdisciplinary research, parent education, establishing outpatient clinics and day schools, and building the financial destinies of the school.

The speech and hearing department, presently headed by Seymour Rigrodsky, Ph.D., and staffed by Frances Prunty and Leon Glovsky, therapists, started in 1948, and has become a recognized leader in the field.

"Speech is slow in developing in these children," said Dr. Rigrodsky, "and many have speech defects. Some are associated with the cause of retardation, and some are types found in normal children, the difference lying in the severity and the nature of the defects.

"Our department is part of the clinical program, and we use a test and observational approach. We evaluate each child during the O&D (observation and diagnostic) period for speech performance and level of hearing, and note any perceptual difficulties. We use expectancy and normal charts, and can compare the child with other retarded as well as normal children. We explore at what level the child is functioning. If he can't identify test pictures or the actual objects themselves, can he selectively discriminate between them as to use? The retarded seem to have less difficulty in receiving impressions than in expressing language.

"If a child operates at a high performance level on intelligence tests," continued Dr. Rigrodsky, "but gives a poor performance verbally, he probably will not do well socially or in school. Even if brain damage is present, the child is capable of progress."

This past fall, a language communication class for children with severe auditory handicaps was started at the school, featuring speech reading and other communication-centered activities. Therapists also go into classrooms for the purpose of language stimulation, and teachers carry on the given idea throughout the day to stimulate vocabulary resources, concept formations, and generally improved communications.

Dr. Rigrodsky is presently instituting a summer speech clinic for outpatients at The Training School, and is working toward establishment of an aphasic clinic at the school in conjunction with Temple University.

George S. Baroff, Ph.D., chief clinical psychologist,

Two boys share a cottage living room, each engrossed with his own diversion. The boy on the left shares the teenage passion for transistor radios; the one on the right has something to ponder. Children lead active, constructive lives, individually geared to their potentials and capacities.

A little girl whispers in the ear of Seymour Rigrodsky, Ph.D., head of the school's speech and hearing department during one of the therapy sessions. She wanted him to play a favorite record; he obliged. Also shown with the children is Frances Prunty, therapist. The department, started in 1948, has become a recognized leader in the field.

served for eight years in the department of medical genetics of the New York State Psychiatric Institute, and is research associate in psychiatry at Columbia University. He is assisted by three psychologists, Dr. Ivan Holowinsky, Peter J. Finley, and Mrs. Lottie Mitchell.

The department does diagnostic testing in the areas of intelligence and personality and conducts a psychotherapy program in conjunction with the psychiatrist. Constant attention is paid to achieving a maximum degree of integration of psychological data within the total school program.

"Many of these children come to us with psychological scarring," noted Dr. Baroff, "created by chronic experiences of failure. Unfortunately, mental retardation does not preclude the simultaneous presence of other serious psychopathology."

Dorothy Baker, M.D., a graduate of Women's Medical College in Philadelphia, and a staff member of the Child Study Center, Philadelphia, is staff psychiatrist at The Training School.

Certain children are sent to Dr. Baker for evaluation, usually because they display psychotic symptoms or other serious behavior disorders. She spends an hour talking to and observing the child to decide on the course of treatment. Psychotherapy is recommended for those who it is believed will benefit from it; regular psychotherapy (talking) for some, play therapy for others. Some can't benefit because of their inability to relate, but the behavior of some can be modified by drugs.

About 150 of the children are on medication prescribed by the drug clinic. Dr. Baker sees the youngsters, a few at a time, each week, and also receives reports from the cottages. If a report is not good, the drugs are changed. Some antidepressants are being used, but it is too early for an accurate evaluation of their effectiveness.

"The drug clinic is not, of course, an attempt at cure," said Dr. Baker, "since we have no cure. Our goal here is to make the child adaptable and as comfortable as he can be. We try to decrease the dosage, and take the children off medication as soon as feasible. We definitely know that brain damage requires greater amounts of medication; otherwise there is no great difference in the use of drugs between retarded and normal children."

At one time, The Training School had its own hospital, complete with an operating room, but it is currently serviced by its infirmary. It is using the local hospital for major illnesses. There is daily morning sick call, when children are seen by the attending physician, who is on call 24 hours a day. Foot specialists have a weekly clinic; the dental clinic is open once a week during the school term, and twice a week in the summer.* There are wards of 12 beds each for boys and girls, for postoperative patients who go elsewhere for surgery, and for the isolation of contagious diseases. There was a run of mumps recently in a tots' cottage before isolation could be effective, so the cottage itself became the control center.

There are registered nurses on duty around the clock, plus a licensed practical nurse on the evening shift. Unmarried nursing personnel live in the hospital.

A Grass eight-channel electroencephalograph unit is used at the infirmary for residential and outpatient examinations.

Complete remodeling of the infirmary is on the agenda, with smaller areas—probably four-bed units—to be employed. Though plans are very preliminary at this point, the school is considering going to a full hospital again, with one wing devoted to diagnostic procedures, another to psychiatric. If accredited, it would make the children eligible for Blue Cross coverage; more important, it would avoid the emotional upset of regular hospitalization, and attract more research personnel and grants.

*Seventeen consultants in the Philadelphia-Baltimore area are utilized by the school.

According to Jean Zimmerman, R.N., supervisor of nurses, the children usually show less reaction to pain than do normal children, though some are equally sensitive to the slightest as well as the most severe pain. According to the dentist, children with tooth trouble serious enough to cause intense pain, express none.

Johs. Clausen, Ph.D., a native of Oslo, Norway, and head of all research at The Training School, is currently in the fifth and final year of an intensive project to learn how and why mentally retarded children differ between themselves.

"Something went wrong," said Dr. Clausen, "either from heredity, injury, or privation. Retardation is the end result of many cases, not just a category of children. We believe some differences in brain function exist, but these are not easy to discover. We know these children differ; we are trying to supply the answers as to how they differ.

"To do so, we must first subject the individual to a great variety of technics and procedures to try to find how he differs from the other children. Then we can define sub-groups, which are easier for research to work with, and then channel the information to educators who may develop training programs from the findings.

"One way of learning these differences is through our ability structure project. An extensive test battery has been set up to measure basic functions necessary for intelligent behavior, basic motor abilities, and to set up a hierarchy of tests to measure these things in pure and in integrated form."

There are 34 tests in the ability structure project, requiring eight to 10 hours to complete, and resulting in about 100 test scores. Three hundred retarded children and 100 normal children are being used as samples. Dr. Clausen is staying clear of personality tests "because we are less confident of objectivity in such tests, and also because we have to stop somewhere."

In addition to the test material, the department has information regarding family and medical histories, and results of EEG and neurological examinations. All the data are currently being prepared for computer analysis, and all are examined to screen out tests not considered trustworthy—i.e., cases in which children became confused or did not understand the questions. When the data have been processed and digested, the test battery will be streamlined and new tests started.

"It is our objective," said Dr. Clausen, "to have a continuing flow of information, to get closer to neurological studies, and to find the most economical ways of tapping functions which seem to differ among the children.

"One step in this direction is to reestablish biochemistry in our program. In December, a biochemical laboratory was awarded The Training School by the Pfeiffer Research Foundation of New York."

"There are so many different professional and lay talents here at The Training School," said Dr. Jacob. "Some are poles apart in temperament, highly specialized knowledge and approach, yet all are seeking to communicate with the children and with each other. The doctor listening to the child's heart through a stethoscope, the cottage parent listening to it through his words, the psychiatrist through his actions, each is learning something more about the secrets of mental retardation. Research and progress are, basically, communication. Whatever we give the children in usable form, they have first given us in confused form. And so we listen with every mental faculty, every nerve fiber and every recess of the heart so that the exchange may be more understanding and more rewarding."

Johs. Clausen, Ph.D., head of all research at The Training School, points to the Ataxometer, a device which he developed to measure body sway. The "patient" is James Eadline, the school's public relations officer. The device gives the total count of the amount of forward, backward and sideward sway in periods of one minute.

Dr. Clausen demonstrates how a stereognosis is done. The child puts his hand through a curtain and receives a block, which he cannot see. He is asked to point (speech is avoided) to its duplicate among the usual objects, in order to determine his ability to form images on the basis of cutaneous response only.

OB DEPARTMENT

Conquest of Labor Pains Exacts Toll in Depressed Babies; Resuscitation Must be Safe, Swift and Simple

By
L. Stanley James, M.B.*

Attempts to relieve the pain of childbirth have been made from the earliest times. The ancient Egyptians advocated rubbing the abdomen with beer and oil of saffron, or vinegar and marble dust, or the skin was intricately tattooed to frighten away the powerful demons responsible for more fearful pain. Herbs with hypnotic or analgesic properties, such as henbane, juice of the poppy, hemp and mandragora, were also known, and were probably in use before 2,000 B.C.

In the Middle Ages, with the growing belief that pain was a divine punishment, little was done to relieve the suffering of women in labor. Actually, it was more the fear of death itself than pain that was the ultimate inheritance of women, and for good reason. As late as 1830, figures in clinics in Paris show that one in three mothers died during delivery. So it was natural that women desired reassurance and alleviation, and that anesthesia remained the dream of mankind.

In 1846, ether publicly administered by William Morton, M.D., was used successfully for surgery in Boston, and a year later Sir James Simpson, of Edinburgh, reported the use of chloroform in 30 painless deliveries. This advance was strenuously opposed by the Church in Scotland, and it wasn't until John Snow, M.D., administered chloroform to Queen Victoria for the birth of her eighth child that the anesthetic victory was won.

It was not an unqualified victory, for it brought with it dangers for both mother and child – most especially the child. Some of these were recognized within a few years; others are still being disputed today.

Snow himself, in his book, *On Chloroform and Other Anesthetics*, clearly shows that chloroform is a more toxic and potent agent than ether. A provocative paper read in London in 1872, by Joy Jefferies, of Boston, led to the gradual substitution of ether for chloroform in Great Britain; another American, Horatio Wood, was responsible for bringing about a general revival of ether in Germany in 1890. Said Dr. Wood, "I think it can be asserted that the probable ratio of deaths from chloroform is four or five times that of deaths from ether."

Despite this knowledge, the widespread use of chloroform in obstetrics was continued well into the twentieth century because of its ease of administration and rapid action.

Twilight sleep (morphine and scopolamine) was tried in 1902, and shortly became accepted as relatively safe for mothers, though it produced many severely depressed infants. The proceedings of the Royal Society of Medicine (1917) describes apnea, or white asphyxia, in 16 of 19 liveborn infants, respirations being delayed for 10 to 20 minutes, and although it was noted that "the view that morphine as the cause of delayed respiration in the child is slightly supported by the results of these cases" the concluding remarks of the president firmly warned of the dangers to the baby.

"When twilight sleep was first introduced," he said, "I used it in a certain number of my private cases, but I soon abandoned the method and do not

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intend to use it . . . it tends to produce uterine inertia . . . increasing morbidity rate. This fact has been proved beyond any question by various observers, and in itself is a condemnation . . . "

Barbiturates in labor were reported in 1924, and were used in combination with various other drugs in the years immediately following. Increasing doses of medication were employed as the goal of complete pain relief or amnesia seemed within reach, and a whole era of doctors grew up taking it for granted that it was normal for a baby to fail to breathe for several minutes after delivery. Some even believed that if the infant did not breathe spontaneously, the brain was damaged, and no effect should be made to help him. This idea was being stated in print as late as 1952, without any critical thought relating the depressing effect of medication on the respiratory center.

When resuscitation methods were used, they were often crude, having little regard for the physiology of lung expansion. Excessive back-slapping, swinging or jack-knifing frequently resulted in injury to the baby. This finally led to a pendulum swing in the other direction, and it became standard procedure to do little or nothing.

However, through this period of change and subsequent drift to the status quo, there remained a hard core of cautious and astute observers who maintained that heavy medication was associated with prolonged labor and more stillbirths. The use of Pantopon, morphine or any of its derivatives in labor was condemned since it prolonged labor in primiparae, increased operative interference and blood loss, and delayed the onset of respiration in 67 percent of the cases. Barbiturates produced a delayed onset in respiration in 35 percent of cases, while in a control series (no medication), the incidence of apnea was only 1.9 percent.

The regional approach to the control of pain was first employed in 1909 by W. von Stoeckel, M.D., but it was not until 1933, when J. G. P. Cleland, M.D., first identified the pathway of uterine pain that this method achieved any prominence. In the last 15 years, caudal anesthesia has gained widespread popularity.

Grantley Dick Read, M.D., presented his ideas on natural childbirth early in 1933. Although his method has been much criticized, more by the medical profession than by the public, and does seem to require a special type of practitioner – and possibly even a special type of patient – his is nevertheless a great contribution. He was the first person to point out that labor pains were not necessarily painful, suggesting that the pain was largely the result of fear and a tense "strung-up" body.

Read has stressed that labor is a natural process. The method has served an important function in making many obstetricians more conscious of the need to secure the full cooperation of their patients and the value of education in this respect. He has paved the way for smaller doses of medication. N. J. Eastman, M.D., has aptly said, "The proper psychologic management of the patient throughout antepartal care and labor is an indispensable basic sedative." And it might be added – medication is not a satisfactory substitute.

Some authorities say that when twilight sleep is used, 10 minutes is a safe and acceptable period to pass before the baby breathes. It is very strange that there was not more concentrated energy to associate heavy medication with lack of breathing. Even now, many physicians are unwilling to admit the association because some babies do perfectly well, and the tendency is to remember the successes rather than the failures. The apparent lack of correlation between dose of a particular drug and the response of the infant appears to be due to the additive effect of the biochemical changes occurring during asphyxia, and the actual trauma of delivery. If labor and delivery are easy, and asphyxia minimal, a heavily medicated infant may appear vigorous. On the other hand, when the biochemical changes of asphyxia are more severe, even a small dose of medication may profoundly depress the baby.

The transition from a parasitic existence in the mother's uterus to a do-it-yourself operation at birth is probably the greatest stress the human body ever undergoes. Not only do we want the baby to be born, we want him to be born well.

In our efforts toward achieving optimal conditions for the baby to take over his body functions at birth, we established an investigating team† here at the Columbia-Presbyterian Medical Center, which in the last five years has conducted extensive examination of the adjustment of newborn babies to life outside the uterus.

At birth, the level of oxygen in the baby's blood is low, since during the delivery process transmission of oxygen from the mother to her baby is interrupted. This absence of oxygen is probably the major stimulus to initiate the baby's first breath.

With his first cries, the lungs expand almost completely, serving the dual purpose of providing an area available for the exchange of oxygen in his body and initiating the changes from fetal to adult type of circulation. He must also get rid of carbon dioxide, another function which heretofore his body has depended primarily on the placenta to perform for him.

A standard method of evaluation, while it does have limitations, forms a basis whereby drug dose response or clinical material from different centers can be compared. Several methods are currently in use. We use the Apgar score, developed and introduced in 1953 by Virginia Apgar, M.D., then of the medical center. It should be stressed that none, however, is a substitute for a careful physical examination, and recording the changing status of the infant as he recovers or deteriorates.

In retrospective studies of infants who have subsequently revealed signs of mental retardation or cerebral palsy, a great deficiency has been lack of worthwhile clinical information for the first few minutes or hours of life. A scoring system partly remedies the deficiency, but it is no substitute. Because

†Dr. James is head of the investigating team.

Dr. L. Stanley James, author of this article, resuscitates a newborn infant. Resuscitation by the mouth-to-mouth technic is extremely old, the procedure of putting the mouth over the mouth and nose of the infant and blowing being mentioned in the Book of Kings. The modern, aseptic method eliminates personal physical contact by means of a device, but the principle remains as simple as it was in biblical days.

the clinical status of the infant may rapidly change for better or worse, the method of evaluation should be simple, taking into account readily observable signs, and should be related to time.

Determining the presence or absence of breathing, or breathing and crying time, is the simplest method to use. This allows little room for errors of judgment, but neglects other important vital signs, and the infant who gasps once or twice as soon as he is delivered, and subsequently makes no effort, will be incorrectly evaluated.

The Apgar scoring system takes into account heart rate, respiration, tone, reflex response and color. A score of two for each sign is given if all these signs are good — heart rate over 100, vigorous crying or rhythmical respiration, full muscle tone, prompt response to stimulation, and the body entirely pink — a total of 10. A score of one each is given for heart rate less than 100, occasional respirations, diminished tone, poor reflex response, and cyanosis of extremities. A score of zero is given if all signs are absent. All the signs are not of equal value, nor are they mutually independent.

With little experience, the obstetrician, pediatrician, or anesthesiologist can learn to make a rapid mental record of the five signs. Color and respiration can be observed; tone can be felt; reflex response to a slap on the sole of the foot is part of the initial resusciation. Vigorous infants, with scores of seven to 10, cry within a minute of birth. Mildly depressed babies are in the four, five or six-point group, and severely depressed infants score three or less.

As our studies progressed, it became clear that even small doses of medication administered to the mother during labor were acting to some degree as a depressant to the baby. The team sought a method of examining newborn infants whose mothers had not received medication. Frank Moya, M.D., assistant attending anesthesiologist at the medical center, joined our group in 1958 and provided such a method, in hypnosis.

After interviewing about 100 prospective mothers in the clinic who expressed interest in hypnosis or natural childbirth, Dr. Moya tested each to determine her ability to enter deeply into a hypnotic state. It was explained to them that hypnosis does not render a person unconscious, cause a surrender of the will, or weaken the mind. Nor is it true that some people have too strong a will to be hypnotized; that they reveal secrets under hypnosis, do things contrary to their convictions, fail to awaken, or develop extreme dependency on the operator.

About 20 of those interviewed were capable of achieving a sufficient degree of anesthesia through hypnosis to enable them to undergo delivery without medication, and were able to observe the birth of their babies. They were also able to remember the birth after the hypnosis had worn off. If, during delivery, the hypnosis began to wear off, the patient merely so indicated to Dr. Moya, and was induced to a deeper state.

In every instance, the babies whose mothers had

Drs. Eric D. Burnard, Richard Rowe, Frank Moya and L. Stanley James, use a team approach to study a newborn infant's adjustment to life. The Apgar system of scoring, which takes into account heart rate, respiration, tone, reflex response and color, is used. A score of two each is given if heart rate is over 100, crying is vigorous, respiration rhythmic, there is full muscle tone, prompt response to stimulation, and the entire body is pink.

received no medication were in a better condition at birth. Vigorous cries began even before the delivery was completed.

We still know very little about the newborn's physiological adjustment to life outside the uterus, partly because the baby, at birth, has been traditionally somewhat between the areas of obstetrics and pediatrics. The obstetrician, while concerned with the baby, is devoting a good deal of attention to the mother. The pediatrician is normally not present during delivery, and thus does not have occasion to study the baby at birth. All of the physician's prenatal care and instruction is aimed at his getting a nice, healthy baby. It is odd that at the crucial time of delivery, there is frequently no additional help should mother and baby both be in trouble at the same time. He should have at least two persons trained to deal with emergencies.

If the baby does not start breathing within two minutes after birth, resuscitation procedures are instituted promptly. Although a brief period of asphyxia may not be harmful, proof that it is safe is lacking, and we have no desire to test the statement of some doctors that 10 minutes is a safe period.

Late in 1953, the Special Committee on Infant Mortality of the New York Medical Society undertook a full-scale investigation of the relatively high perinatal death rate, and found that many babies could have been saved by prompt resuscitation. When its investigation was completed, the committee produced a set of procedures the clinician may follow to prevent death or the late effects of asphyxia.

The author served as medical director for a motion picture, *Resuscitation of the Newborn*, produced last year under the auspices of the committee. This project was sponsored by the medical education service of Smith, Kline and French Laboratories.

The resuscitation method we use, shown in the film, is simple, and safe in the hands of a trained operator. Immediately after delivery, the baby is held head down while the cord is clamped and cut. The infant is then placed supine on a table. The head is kept low with a slight lateral tilt. A nurse or attendant listens to the heart beat immediately, indicating the rate by finger movement. During this first minute the baby is being clinically evaluated by the Apgar score.

If resuscitation measures have produced no response by one-and-one-half minutes after delivery, the progressing asphyxia usually leads to diminished muscular tone and a fall in the heart rate. A small, plastic oropharyngeal airway should then be inserted into the mouth. Oxygen is then applied under pressure of 16 to 20 cm. of water for one to two seconds. Although this pressure is insufficient to expand the alveoli, it can force oxygen down the trachea to the respiratory bronchioles. Here sensitive stretch receptors are affected. This stimulus is added to that of the chemoreceptors, and initiates a gasp in about 85 percent of cases.

However, if the heart rate continues to fall and the infant becomes completely flaccid, resulting in a score of four or less, the larynx should be visualized with the laryngoscope. This is not a difficult procedure, but skill should be obtained by practice on the stillborn.

For this procedure, the infant should be lying supine on a flat surface. A folded towel under the head and a slight extension of the neck will place the baby in a position which resembles a sniffing posture. The head should be held steady with the right hand and kept in line with the body. With the laryngoscope held in the left hand, the blade is introduced at the right corner of the mouth and advanced between tongue and palate for about two cm. As it is advanced, the blade is swung to the midline. This moves the tongue to the left of the blade. The operator looks along the blade for the rim of the epiglottis. The laryngoscope is gently advanced into the space between the base of the tongue and the epiglottis. Slight elevation of the tip of the blade will expose the glottis as a vertical dark slit bordered posteriorly by pink arytenoid cartilages.

If foreign matter, such as small blood clots, meconium-stained mucus or vernix, obstructs the view,

quick, brief suction is indicated. When the glottis is seen to be patent, a curved endotracheal tube is introduced at the right corner of the mouth and inserted through the cords until the flange of the tube rests at the glottis. Care must be taken not to intubate the esophagus instead of the glottis.

If the stimuli from these procedures have not initiated a spontaneous gasp, positive pressure should be applied to the endotracheal tube. Brief puffs of air blown through the tube with enough force to cause the lower chest to rise gently will usually start spontaneous respiration. If the stomach rises, however, the esophagus has been intubated instead of the trachea, and the position of the tube must be corrected.

Experience in obtaining pressure between 25 and 35 cm. of water should be gained by puffing into a spring manometer, which has a dial to indicate pressure. It is not difficult to learn to apply pressure very briefly — one can feel the response from the lungs, and can usually feel any obstruction.

If the endotracheal tube is fitted with appropriately-sized adaptors, it can be connected to a rubber bag of oxygen or oxygen-enriched air, or to one of the mechanical devices for applying positive pressure. The shortest, lowest pressure which is effective should always be used. Pressure as high as 80 to 100 can be used, but if prolonged, will cause rupture.

Severely depressed infants usually require three to eight minutes of artificial ventilation before a spontaneous gasp is taken. Rarely, 25 or 30 minutes of assisted ventilation may be necessary.

As soon as the baby is out of danger, all possible factors which may have led to respiratory failure should be carefully investigated to help increase the effectiveness of subsequent nursery care. Congenital malformations or other special cases may require additional procedures, but the initial, basic care is the same for all babies.

Resuscitation is not difficult, but the person giving it must be trained. The resuscitation team could very well consist of nurses, provided they have had such training. The technic is comparable to driving a car; the learner is all right on a side road, but often becomes confused and inefficient on a busy highway. We train our staff on newly dead babies. But, it should be emphasized, going through the motions on a baby in whom the spark of life is irrevocably gone, and working on a baby with a chance to live are two different things. In the latter situation, emotional tension is almost inevitable, and the usually cool, competent person becomes all hands and feet.

In the small hospital, not enough opportunity to learn is available. The general practitioner and the nurse are left out, yet they are enormously important. Someone with clinical acumen will somehow get the experience, but I wish the opportunity could be more largely given. I believe the best advice that can be given to anyone preparing a setup for resuscitation is to keep it simple. If you have five levers to pull, you have four chances of pulling the wrong one under stress.

[*The following items are abstracted from papers delivered at a recent meeting of the American Academy of Pediatrics.*]

Hazards of Antibiotic Therapy in the Newborn and Premature

Use of surface area or body weight as a basis for estimation of the dosage of drugs to be administered to infants may lead to erroneous conclusions. As additional information is gathered it is becoming more apparent that there are certain enzymes necessary for the conjugation of drugs which are relatively inactive in the liver and kidney of the very young animal. If these data are true, then it becomes imperative that administration of drugs be governed by some consideration of neonatal physiology.

It has been shown that formation of glucuronides and sulfates is effectively diminished in the infant. There are no doubt many other reactions and areas to be considered such as the general physiologic aspects of gastrointestinal, respiratory, and renal function. In order to arrive at a modus operandi for administration of agents to young infants it is quite apparent that a great deal of further investigation is necessary. Each biochemical mechanism for the handling of a particular drug would have to be studied separately with the infant. This approach has now become quite useful for the administration of penicillin and the barbiturates. Considerations of this kind would initiate an entire new field of investigation.—*Norman Kretchmer, M.D.,* professor and executive head, department of pediatrics, Stanford (Calif.) University School of Medicine.

Choice of Antibiotic Requires Clinical Acumen

In 1940, the choice of an antibacterial drug was simple, since only sulfonamides were available. In 1942, penicillin was introduced. Today, more than 15 drugs are available. Choosing which one to use on a given patient requires superior clinical acumen combined with a knowledge of the virtues, limitations and hazards of the various antimicrobial agents.

Consideration of these factors will help guide in the selection: clinical impression of the etiology; identification of the causative agent; nature of the infection; host factors; epidemiologic factors; potential toxicity of the drug; preference of the doctor; and cost.

The new penicillin preparation (BRL 1241 or 2, 6—dimethoxy, benzamido penicillinate monohydrate) has the following interesting properties: It is resistant to staphylococcal penicillinase, and has been effective in vitro against all pathogenic "penicillin resistant" staphylococci tested thus far. It is unstable in acid medium, hence must be given either by vein or intramuscularly. It is rapidly absorbed and rapidly excreted, so must be given at intervals of every two or three hours. Its toxicity is similar to penicillin G. It is less active than penicillin G or V against hemolytic streptococci and penicillin sensitive staph (at least 20 or 30 times less active).

(Continued on next page)

The five most important reasons for the failure of antibiotics are wrong diagnosis; inaccessibility of chronic infection; superinfection; resistant microorganisms; and insufficient treatment.

The indiscriminate and careless use of antibiotics will inevitably produce unnecessary disease, and even death.—*Saul Krugman, M.D.*, chairman, department of pediatrics, New York University College of Medicine, N.Y.

Iatrogenic Disease May Be Induced by Drugs, Autosuggestion

Iatrogenic disease in children is not surprising, considering the widespread use of pharmaceuticals. Dosages must be individualized, not modified from some adult formula. One of the commonest forms of illness of this type is acetyl salicylic acid poisoning. An adult dose is as much as 1 gr. per pound of body weight per day. Such doses in small children can prove fatal. One gr. per year of age, not exceeding five doses in 24 hours should be the maximum.

Because of their ability to control infections, antibiotics are often used indiscriminately, particularly over prolonged periods as prophylactics. Aside from the acute allergic manifestations, prolonged usage may bring on such hypersensitivity reactions as polyarteritis nodosa. Chloramphenicol in prolonged usage may give rise to leukopenia.

Tetracyclines and chloramphenicol are apt to alter or destroy the normal bacterial flora in the intestinal tract, leading to complete replacement by resistant staphylococci and subsequent death due to septicemia.

Death from a multitude of causes has been ascribed to prolonged use of steroids, even in moderate dosages. In children, a most important consideration is the steroids' ability to inhibit growth and cause severe osteoporosis.

Blood transfusions are still another source of possible iatrogenic disease. Dangers of overloading the circulation, dangers of incompatibility and sensitivity due to Rh and other factors, and possible transmission of infection are all important considerations.

In the psychological field, much chronic invalidism may be brought about by the physician who inadvertently instills fears in his patients who have heart disease, chronic neurological, or other disorders.

Even certain diagnostic procedures are dangerous in some situations. A lumbar puncture performed in a person suffering from increased intercranial pressure may bring about death by corning of the medulla. So apparently simple a procedure as an enema has caused death in infants with Hirschprung's disease, either by water intoxication due to repeated lavage, or to perforation of a stercal ulcer.—*A. Lawrence Chute, M.D.*, professor of pediatrics, University of Toronto; chief of pediatrics, Hospital for Sick Children, Toronto.

Improvements Leading to Renewal of Interest in the Sulfonamides

In 1936, enthusiasm for the sulfonamides for bacterial infection was high, with childhood diseases being managed more effectively, and often with dramatic improvement. In the next 10 years, more toxicity was shown in its use. Penicillin proved less toxic, and the new drug was welcome. Currently, because of improvements in the sulfonamides, we have a renewed interest in their use.

The sulfas are not the choice for the seriously ill patient, being used primarily in office practice or outpatient clinics. There is no clear evidence of the superiority of one sulfonamide over another, but in any case, treatment of severe infection with sulfa alone is rarely justified.

Disc sensitivities in vitro are often misleading because sulfa inhibitors are usual in lab media, and because of poor diffusion of sulfa compounds in cultures. Clinical conditions are often due to sulfa-sensitive organisms.

Advantages of the new sulfas are low toxicity; ease of handling; ease of measuring blood levels; they are absorbed in free form; diffuse well into joint, pleural and ascitic fluids; diffuse slowly into normal CSF, better through inflamed meninges; conjugated by liver, excreted by kidneys in active and inactive form.

The sulfonamides should not be used in the newborn or premature baby; in hemolytic anemia or billirubin; in known sensitivity; marked renal insufficiency or oliguria; for topical use.—*C. William Daeschner, Jr., M.D.*, chairman, department of pediatrics, University of Texas Medical Branch, Galveston.

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SYNTHESIS—

(*Continued from page 54*)

opportunity for any sort of meaningful group problem-solving or discussion.

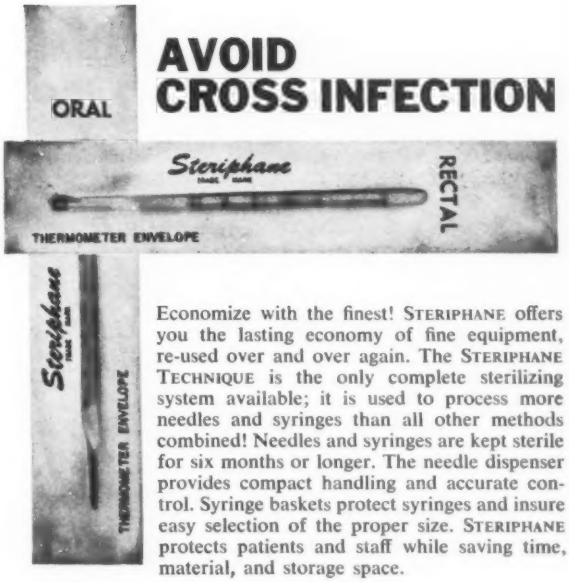
In order to establish coordination with respect to care of patients, schedules and routines are established and rigidly adhered to. Patients may be scheduled for x-ray, lab, or physiotherapy treatments or exams in consecutive time order. A whole day's schedule will be shattered if the x-ray procedures require 30 minutes instead of the 10 planned for.

In coordinating the professional activity of practitioners within the hospital, administration usually must act with careful diplomacy and through the established medical staff organization. This body, which is self-appointing and self-disciplining (through recommendations to the board), may tend to conceive of its role as something different from that of the hospital in general, since each doctor is concerned primarily with his own private-patient practice. The administration and medical staff leaders will often mutually discuss common problems of coordination. Action will be finally "recommended" by the staff to the board.

Coordination with respect to the hospital's broad goals of planning and fulfillment of purpose is highly significant. Other health facilities – public health departments, nursing homes, medical office buildings – are being planned along with hospital facilities. Concern that outlying areas have hospital beds available and that a communication line of referral and education be established with a medical teaching center is a part of the hoped for over-all coordination. It is the role of district, state, and national hospital commissions to coordinate the efforts of all hospitals and help to provide universally better and more effective service. Common sense and economic efficiency in the use of capital and operating funds demand this. There are, however, many instances where the "ideal" in well planned and coordinated hospital and health facilities is not realized. Sometimes, even the very best experts in the field of hospital planning have failed to convince community groups of the value of including common sense and economic reason with their plans. Tradition, prestige, and the symbolic community pride in the hospital are many times the stumbling blocks to effective external coordination.

In summary of this final point of explanation of the hospital organization, I would say that without coordination the activities within the hospital would be meaningless functions separated by themselves from any worthwhile goal. It is only through efforts to achieve coordination that many varied occupations are brought to focus in caring for the patient. The necessary and complimentary roles of education and research that must be a part of every hospital also inter-relate and eventually contribute to patient care. Outside the organization itself, coordination with all other hospitals and related health activities is the

(*Continued on next page*)



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CONCLUSION

I have have presented what I feel are the important characteristics of the hospital organization. Certainly none of the four qualities has been exhaustively studied in this broad over-all view; much more remains to be learned and explained in detail before there can be a depth of understanding and awareness of the human problems of this social institution.

It is true that other industries or institutions possess equally significant qualities of change, complexity, conflict, or coordination. These broad attributes, however, are in no other organization to as great an extent, and with as great an impact, as in the hospital. The hospital organization is a synthesis of all four of these concepts. It achieves its ultimate purpose and meaning as an intermixture of them. The presence of the first three – change, complexity, and conflict – tends to cause and promote all apparent and inherent problems of this organization. The absence of the fourth – coordination – both internally and externally creates its own problems and blocks resolution of the ones stimulated by the initial three.

The fact that there is much more to be learned about the hospital as an organizational structure leads to my conclusion that further specific study and research in the area of behavioral science as applied to the hospital is necessary. Work to discover positively what the human problems are in the hospital structure, why they are present, and how they may be attacked by hospital managers, is of utmost importance. The very existence of both our voluntary hospital system and basic philosophy of medical care may very well be in danger if the leaders of today's hospitals are incapable of coping with their organizational problems and providing leadership responsive to the needs of society. Competent research is needed that will make clear those concepts of individual and group behavior applicable to hospitals. The leaders of this industry must be educated to understand, interpret, and use the values of human research to assist themselves in carrying out their responsibilities.

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[The following abstracts were presented at the recent meeting of the American Heart Association.]

Deaths from Coronary Disease Found Highest in Sedentary Jobs

Results in our studies support the concept that less coronary heart disease exists among men holding jobs requiring moderate or heavy physical labor.

Records of approximately 43,000 clerks, 31,000 yardmen, and 24,000 section men, all in the railroad industry, were reviewed. Clerks, switchmen, and section men were chosen as examples of occupations requiring physical activity classed as light, moderate, and heavy, respectively. All the men had held their jobs for at least 10 years.

Age-adjusted death rates for arteriosclerotic heart disease in the age group 40 to 64 during 1955-56 were found to be 5.76 per thousand for clerks, 3.87 per thousand for switchmen, and 2.79 per thousand for section men. As percentage of total deaths, these rates were 48.8 for clerks, 37.9 for switchmen and 36.7 for section men.—*Henry L. Taylor, M.D.,* Minneapolis; *Ernest Klepetar,* St. Paul; *Ancel Keys,* Minneapolis; *Willis Parlin,* St. Paul; *Henry Blackburn, Thomas C. Puchner,* Minneapolis.

Smoking Results in Tougher Blood Clots

The thrombelastograph is an appartus which measures the elastic changes of a thrombus during the whole coagulation process. It determines graphically the time at which a clot starts to form, the rate at which it forms, and its continued tensile strength and elasticity.

Thrombelastograms were recorded on ten normal fasting subjects, five men and five women ranging from 21 to 44 years of age, before and after smoking one standard-length nonfiltered cigarette of high nicotine content. Results show that tobacco smoking does not influence the time at which a clot starts to form, but does increase the tensile strength and the rate of formation of clots.—*Orville Horwitz, M.D., and Donald S. Waldorf,* Philadelphia.

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Symposium on the O. R. Nurse

WITH the increasing use of technicians in the operating room, there is increasing concern among operating-room nurses about the invasion of their domain and its possible effect on the quality of patient care. Many argue that a technician, trained principally in the mechanical aspects of the job of the scrub nurse, cannot provide as intelligent assistance to the surgeon as the registered professional nurse, with her far greater knowledge of anatomy and all the factors involved in patient care.

Furthermore, many O.R. nurses express disagreement with the statement of the Joint Commission on Accreditation of Hospitals that it is permissible to use technicians as scrub nurses, but that only registered nurses should serve as circulating nurses.

In the first article in this symposium on operating-room nursing, HOSPITAL TOPICS has asked the director of the Joint Commission, Kenneth B. Babcock, M.D., to explain the commission's reasons for its opinion. In the second article, O.R. supervisors analyze qualifications needed by the scrub nurse and circulating nurse, and discuss use of technicians.

A subject like this is never closed and cannot be dealt with adequately in one or two articles. Additional material will appear in our May issue. We invite your comments.—THE EDITORS.

I. The Key Role of the Circulating Nurse

An interview with Kenneth B. Babcock, M. D

Q. Dr. Babcock, operating-room nurses are very much interested in the Joint Commission's opinion of the relative qualifications needed for the job of scrub nurse and of circulating nurse. You have made the comment — in a talk before the national AORN congress last year — that the job of circulating nurse requires the exercise of more professional judgment than that of the scrub nurse. You have also said that some hospitals are using technicians as circulating nurses — and that a hospital engaging in this practice is not safe. Would you expand on these statements?

A. Prior to World War II, it was more or less a requirement of the American College of Surgeons that only registered nurses function as scrub nurses and as circulating nurses in the operating room. With the advent of the war and the shortage of nurses, hospitals, as a matter of expediency, began to use practical nurses or trained nurse aides in the operating room. Immediately questions were asked concerning the ethics, the legality, and many other aspects of the use of nonprofessional personnel.

Following the war, the College of Surgeons, and later the Joint Commission on Accreditation of Hospitals, revised their opinion of the necessity for only R.N. coverage in the operating room, and stated that they believe that the job of a scrub nurse is that of a technician. It is a mechanical job which can be done by someone of less training and intelligence than a registered nurse — if the person is taught properly.

With this concept, we have allowed hospitals to use trained technicians in the operating room, whether they be nurse aides, medical students, or practical nurses. When we say that the job of scrub nurse is a technical job which does not require judgment, we mean that the scrub nurse does not have to make decisions affecting patient care.

The opinion of the American College of Surgeons and of the commissioners of the Joint Commission concerning the circulating nurse is that she will directly supervise the scrub nurse and that, if there are decisions to be made, she is in the position to make them. Therefore, she must be a registered nurse, and it is her decision as to whether technic is faulty, or whether a change should be made in the course of the nursing care of the patient. She is in charge of that operating room as far as nursing care is concerned — of course, subservient to the surgeon on the case.

The attorneys general in several states have stated that in their opinion it is perfectly proper, if it is common usage in hospitals, and the hospitals can

prove that the individual acting as scrub nurse has had adequate training, to utilize a technician as a scrub nurse.

I'm not a lawyer — and each state should consult with its own attorney general — but the laws in the different states stipulate that a registered nurse may utilize judgment only as far as nursing is concerned. In other words, a practical nurse or a nurse aide is not allowed the privilege of utilizing judgment in the treatment or care of patients, and she always must be under the direct supervision of a registered nurse. It is for these reasons as enumerated that the commissioners of the Joint Commission took their stand that a practical nurse or nurse aide may serve as a scrub nurse, but a registered nurse must serve as circulating nurse.

Q. Some supervisors have made the point that the circulating nurse often has to be in and out of the room quite a bit — perhaps on errands for the anesthesiologist or other members of the team. Suppose, then, that she is out of the room when a situation arises that might require the use of judgment — would the scrub nurse be qualified?

One supervisor told us that the registered nurse can make substitutions and think faster than a nonprofessional. She also made the point that scrub nurses have helped to teach the residents good technic, and that doctors may take criticism from an experienced scrub nurse who is an R.N., whereas they wouldn't accept it from a technician; and that also the technician might not dare to correct a break in technic by the doctor, whereas the R.N. scrub nurse wouldn't feel so reluctant to do so.

A. I don't agree entirely with what you have just said. It would be my feeling that if the circulating nurse were out of the room at the time judgment was required, there would be two avenues of approach left for the scrub nurse: one, to ask the doctor — who is there and who must be there — what to do, or, two, to wait the few seconds or minutes until the circulating nurse comes back.

The need for a split-second decision by a scrub nurse does not arise in one out of 10,000 cases.

With regard to breaks in technic, I believe that if a scrub technician observes a break in technic, even though she considers herself a lowly technician, she is duty- and honor-bound to live up to her responsibilities and report it. She cannot refuse to notify the surgeon or whoever is in charge, just because she feels there might be criticism. The patient's protection comes first, not the status or the feelings of the individual.

Q. Would it then depend possibly on how she was instructed as to whether she would be conscientious enough —

A. There is no question in the utilization of nurse aides or practical nurses. They must of course be responsible individuals with enough integrity to know what is right and what is wrong and to say so if the time comes.

Q. I would like to call your attention to the job descriptions for the scrub nurse and the circulating nurse which appear in the book, "Job Descriptions and Organizational Analysis for Hospitals and Related Health Services," published in 1952. Would you say that these are somewhat outdated?

A. Yes. For instance, as a part of the description of the work performed by the scrub nurse, there is the statement, "Observes patient during surgical procedures for complications, such as hemorrhage, and furnishes emergency equipment and supplies to prevent fatality." I question very much the ability of a scrub nurse to observe a patient and know whether complications are coming unless they are so gross that the surgeon and circulating nurse have seen them long before.

Q. Dr. Babcock, why do you think the job of scrub nurse has such a great appeal for the R.N.? Some nurses say that they went into operating-room nursing because they wanted to scrub, and that when you take this duty away from them, you're taking away one of the things they enjoy the most.

A. We have heard the same statement — that many love to scrub, and they are very unhappy if they're not allowed to do it. There is a certain glamor to being the operating nurse, or operating scrub nurse. The status of this job is recognized in many hospitals that utilize nurse aides, by giving the aide in the operating room a little higher salary than the average aide on the floors, because she has taken extra special training and deserves more pay.

Movies and other media have more or less dramatized the operating room with all its supposed crises and all the rest, and I know of no other reason that many nurses like and want operating-room work, but that's up to them.

Q. Do you think there is anything to the idea that the nurse who has this great love for scrubbing perhaps wanted to be a surgeon and that standing there next to him, sharing with him, is the next best thing? A nurse once told us quite frankly that the reason she enjoyed scrubbing for neurosurgery was that it was the next best thing to being a neurosurgeon herself.

A. I think that idea has much basis in fact. Nurses have a very great sense of being part of the picture, of helping this patient very dramatically. They might have wanted to be surgeons; they want to share in the glamor of saving a patient's life in the operating room.

Q. It's said that a good scrub nurse doesn't have to be told by the surgeon what instrument he needs; she has his instruments ready, and he doesn't even have to ask for them. Learning to anticipate the needs of the surgeon is part of being an intelligent scrub nurse, and of course nurses argue that the R.N. is much better qualified to do this than the technician is.

A. I could disagree with that to the extent that

I have seen several hundred, if not thousand, nurses' aides who are just as good scrub nurses as some of the very best R.N.'s. They take pride in their work, and they can anticipate the surgeon just as well as a registered nurse, and need no prodding or calling for instruments. They can anticipate his every need. Before I came to my present position, I was a hospital administrator, and the operating-room technicians in my own hospital had that reputation.

Q. One supervisor whom we queried about qualifications for circulating nurses listed ability to move patients as an important qualification. She said her hospital had used male nurses or male technicians as circulators, when they were available, and has found them helpful because they are able to move the patient. How important is that partciular qualification?

A. There is no question that a male might have a strong back, but an untrained male could do untold harm if he didn't know how to move a patient from the operating table to the stretcher, or vice versa. For example, someone with judgment must oversee the moving of a patient who has had a slipped disc operation or other spinal surgery, or the whole operation can be spoiled simply by moving the patient too carelessly. The same is true of many orthopedic procedures. If judgment isn't used and that patient moved carefully, arduous hours of setting a fracture can be undone in a few seconds. Somebody with judgment ought to supervise the moving of patients, which is very important.

Q. That would be part of the job of the circulating nurse?

A. At least, if not to do it, to supervised it, to make sure that it's done all right.

Q. Regardless of how nurses feel about the use of technicians, most hospitals seem to be coming around to using them, because there just aren't enough nurses to go around.

A. Yes. Actually, we have had very little trouble over the use of technicians (as scrub nurses). Our big problem is the desire of hospitals to use them also as circulating nurses, because of the increasing shortage of nurses – the demand of several large hospitals to have one registered nurse circulating for four or five operating rooms, supervising non-registered nurses who are the local circulating nurses in those operating rooms. This situation is somewhat similar to that of a hospital which is covered at night by only one floating night supervisor, under whom are only practical nurses and nurses' aides.

In something as critical as an operation, we do not think that a circulating nurse can properly supervise four or five operating rooms at one time. We demand that there be at least one registered nurse in every major operating room in the capacity of a circulating nurse. Please note, I use the word "major"; I don't think that it's necessary in the lancing of a boil . . . but at least on a major case, when there is opening of a body cavity, or the patient is critical.

Q. Do you think we will ever have some kind of standardized program for the training of surgical technicians? There doesn't seem to be any. Every hospital has its own program. The lengths of the program vary; the material taught seems to vary.

A. Your statement is true, and I hope that ultimately there may be a standardization. As long as the training of nurse aides and practical nurses in O.R. technic is given in a particular hospital, you are going to get as many different kinds of training as there are hospitals that offer the training. Until operating-room technicians are given such status that there are state or national schools for them, you're going to get as many different kinds of training as there are trainees. This cannot be helped. If you give these people more status and send them away to schools instead of training them locally, the training then becomes expensive, and hardly warranted because technicians are not a stable group of employees. I do not have any anticipation at the present time of state or national schools for technicians in the operating room.

Q. What about the possibility of a standardized manual for the student, such as the one for the instructor, published by the American Hospital Association,

A. There is no student manual that I know of, per se, except those written up by individual hospitals.

Q. Dr. Babcock, some operating-room nurses report that when they have both professional student nurses and technicians in the operating room, there is a status problem. The students look down on the technicians, and the technicians resent being ordered around by the students. Is there any way of getting around that?

A. A wise supervisor of the operating room will confine her student nurses to being under the supervision of registered nurses. If there are eight operating rooms, let us say, she will confine them to four, and the other four could then be staffed by technicians under the supervision of registered nurses. There would be no crossing of the paths. A student is in a learning capacity, and should always be under the supervision of a registered nurse, just as the nurse aide is.

Status problems are not confined to students and aides. Nurses who are graduates of collegiate schools may look down upon graduates of hospital schools, and the graduates of hospital schools may look down on the practical nurses and the aides. But, if they do, we think they are being rather small. We're all out for the improvement of medical care and good patient care, which is not a question of trying to feel superior to somebody else.

(Continued on next page)

II. Supervisors Speak: On Qualifications For O.R. Nurses, Use of Technicians

What do O.R. supervisors consider when they are assigning personnel on cases? Which job requires more talents and involves more responsibility — that of the scrub nurse or the circulating nurse?

HOSPITAL TOPICS asked a dozen supervisors in different parts of the country to answer these question:

1. Which position, in you opinion, requires the exercise of the most judgment — the job of the scrub nurse, or the circulating nurse? Why?

2. When you are assigning personnel for surgery, what points do you consider in deciding who is to scrub and who is to circulate? If you had two persons available, and one you considered definitely superior in all-around experience and intelligence, to which position would you assign her?

3. Would you list what you consider to be the requirements for a good scrub nurse and for a good circulating nurse?

4. Are you now using technicians in your operating room and, if so, in what position?

Eight of the 12 replied in detail — and seven out of eight said that they would assign the better qualified person as the circulating nurse. Commented Mrs. Ethel I. West, national AORN president: "The circulating nurse has a wide area of responsibility. She must assume the total responsibility of the individual operating room. In addition to anticipating the needs of the surgical team, including the anesthetist, she serves the patient in a more general aspect. Often the family needs must be recognized, as she may be the only contact for the patient. She may also have the responsibility for seeing that everything is in readiness for the next case or cases in her room."

And Bessie L. Bowen, VA Hospital, Jackson, Miss., though emphasizing the need for well-trained, skilled personnel in both positions, declared: "In my opinion, the duties of the circulating nurse require the exercise of more professional judgment, especially as emergencies arise. The circulating nurse observes the entire situation in an operating room and must provide services to each member of the surgical team and at the same time maintain an aseptic and safe atmosphere for the patient.

"With the devices, gadgets, complicated procedures, and methods used in the complex surgery of today, the circulating nurse must be well trained, informed, and skilled in modern surgical thought so that she is able to recognize changes in the condition of the patient, and anticipate the numerous needs of the surgeon, the anesthesiologist, and the scrub nurse, and she must exercise sound judgment in providing these needs in the order of their importance.

"The duties of the circulating nurse are comparable to those of a head nurse on a patient-care unit, as she must see that everything possible is done for the care of the patient during the time he is in the operating room, subject, of course, to the over-all authority of the surgeon. A well-trained technician could possibly carry out the duties of a scrub nurse effectively in most instances."

Sister M. Jerome Emilian, St. Mary Desert Valley Hospital, Apple Valley, Calif., pointed out the difficulty in making a definitive statement as to which position requires the exercise of the most judgment, saying, "Each of these areas has its own unique responsibilities and situations which r e q u i r e prompt, accurate and important judgments. Routine cases, if there are such things, still contain the possibilities of those exceptional and highly stressful ones. . . . Certainly the position of the circulating nurse entails a very wide and comprehensive range of activities and possible judgments and decisions.

However, the scrub nurse with a good understanding of her role in the total care of the patient and with those influential factors, her skills and judgments during the actual performance of the surgical procedure, has a position which naturally requires much more than mechanical skills and conditioned reflexes.

"Generally speaking, I would assign the individual with what I considered superior experience and intelligence to the position of circulating nurse. However, if the nature of the needs of an individual case (seemed to require it), I would not hesitate to place this person in the position of the scrub assistant."

Sister Catherine de Sienne, of Montreal, in agreeing with the others that the job of the circulating nurse required the exercise of more judgment, pointed out that the circulating nurse's responsibilities extend to the patient, the surgeon, the anesthetist, and the hospital authorities — the administrator, the director of nursing, and the operating-room supervisor. She gave several specific duties as examples:

"A. *Identification.* At our hospital a patient undergoes four different procedures of identification before entering the operating room. The circulat-

ing nurse reviews: the call slip; the arm identification band and bed plate; laboratory tests, and legal consent for operation. She then gives her report to the surgeon and the anesthetist who together, once the patient is placed on the operating table, give him his fifth and last identification.

"B. *Positioning.* Safe and correct positioning is essential. Not all surgeons have the privilege of always having the same assistants during a period of six months or more. The assistant may be very good in neuro, but may not have had the opportunity of assisting in infantile surgery. Then on whom does the surgeon depend to protect his patient from a brachial paralysis on his radical mastectomy case, or to put the 4" x 10" cushion under the right region of the pyloric stenosis of the one-month-old baby? The circulating nurse. Although the surgeon is alone responsible for his case, on whom may he depend to place correctly the indifferent electrode pad used with the cautery machine? The circulating nurse.

"C. *Aseptic technic.* The circulating nurse in full view of the activities of the theatre protects the patient from possible slips in technics, by members of the team, and also from outsiders such as visitors, students, the pathologist, and x-ray technicians.

"D. *Sponge count.* Although it is the surgeon's responsibility to remove all sponges from the abdomen or the spinal column, the circulating nurse has the responsibility of giving the correct result of the final count.

"E. *Dressing.* The dressing on aseptic cases presents no complications to the assistants, generally speaking. Such is not the case with septic dressings, where contamination may spread rapidly. The circulating nurse must be depended upon to apply the principles of aseptic technic at all times. She is required by the team to furnish the necessary supplies to carry out the aseptic technic in a scheduled septic case and also as soon as a septic condition is ascertained."

Moreover, Sister Catherine declared, it is to the circulating nurse to whom the team turns in emergencies such as cardiac arrest or uncontrollable hemorrhage. In cases of cardiac arrest, she knows where the equipment is located; she starts the chronometer and brings the cardiac-arrest cart and drugs; and it is she whom the surgeon calls upon to operate and control the defibrillator at the right volume.

When uncontrollable hemorrhage occurs, the anesthetist, surgeon, and scrub nurse turn to the circulating nurse for extra blood, for help in installing all IV paths available, for keeping the patient warm, and for extra hemostats and "those special curved and longer forceps the surgeon has seen somewhere in some instrument room, and which are indispensable to him in this case."

Vivian Warren, White Memorial Hospital, Los Angeles, believes that in more difficult cases the circulating nurse and the scrub nurse should have the same qualifications. She explained that the nurses who have been in her department the longest do the circulating, because they know the department and the doctors much better and are able to assist the scrub nurses.

"We rotate our nurses to give them experience in circulating and scrubbing," she said. "New nurses coming to the department scrub first after orientation . . . always with older personnel. Experienced nurses are always used for heart, vascular, and neurosurgery."

The importance of a calm, experienced circulating nurse to a smooth-running operating room was emphasized by Sister Alexine, Mercy Hospital, San Diego. Among the points she made were:

"The circulating nurse has the responsibility for a well-ordered plan of action. The immediate care of the surgical patient admitted to the O.R. suite is important. A quick, intelligent survey of the patient's chart, noting identification diagnosis, permit, history and physical examination, consultations, laboratory and x-ray reports, religion, and so forth, is imperative.

"As many patients are aware of their surroundings, a calm, concerned reassurance by the circulating nurse is of great assistance to the patient.

"The progress of the operation often depends on the tools and materials provided by the nursing members of the O.R. team. An alert, interested circulating nurse will know what is needed and see that it is where it is needed, before the operation is brought to a halt while a three-yard dash is being executed to providet he missing items.

"If the scrubbed members of the O.R. team become excited, weary and impatient, a calm, experienced circulating nurse is the answer to an O.R. supervisor's prayer."

"Unquestionably the circulating nurse is called upon to exercise more judgment in any operation,"

Our thanks for their comments go to . . .

Mrs. Ethel I. West, R.N., operating-room supervisor, Methodist Hospital of Southern California, Arcadia, and president, Association of Operating Room Nurses.

Bessie L. Bowen, R.N., operating-room supervisor, VA Hospital, Jackson, Miss.

Sister M. Jerome Emilian, R.N., operating-room supervisor, St. Mary Desert Hospital, Apple Valley, Calif.

Sister Catherine de Sienne, R.N., operating-room supervisor, L'Hospital Sainte-Justine, Montreal, Que., Canada.

Vivian Warren, R.N., operating-room supervisor, White Memorial Hospital and Clinic, Los Angeles.

Betty M. Egan, R.N., operating-room supervisor, Monmouth Medical Center, Long Branch, N.J.

Sister M. Alexine, R.N., operating-room supervisor, Mercy Hospital, San Diego, Calif., and member, board of directors, Association of Operating Room Nurses.

declared Linda K. Alden, Monmouth Medical Center, Long Branch, N. J. "She is the 'case organizer'; she arranges for and participates in preparing the operating room for the patient, checks the patient and chart to see whether everything is in order, reporting deviations as they occur."

She also mentioned the circulating nurse's role in reassuring the patient, assisting the scrub nurse and anesthetist, observing the operation and anticipating the need of additional supplies or equipment, preparing for transfer of the patient out of the operating room, and then making the necessary preparation for the following case.

Betty M. Egan, VA Hospital, Boston, did not agree with the others in the group. She would assign the better-qualified person as the scrub nurse and the other as the circulating nurse.

"In all instances, I have found plenty of people free to help the circulator, such as extra doctors, the supervisor, or her assistant," she commented.

"I do not feel that it is just a matter of judgment. It is anticipating the needs of the surgeon, having good knowledge of what he is trying to do, and having the equipment ready that he is going to need without his asking for it.

"A circulator is in and out of the room quite constantly for the team and in particular for the anesthetist. If there is a registered nurse scrubbed, she can make substitutions and think faster than a nonprofessional, who is apt to panic in time of an emergency.

"We also know that for years it has been the scrub nurses who have taught young residents good technic, and you can do this only when you are scrubbed with them and helping them. Doctors will take constructive criticism from an experienced nurse that they will not take from a technician. I feel also that technicians would not correct a doctor on breaks in technics because of their status.

"If the registered nurse is the circulator, she will not be in the room all of the time to see things going on because of the nature of her duties. I feel that every operation is a major one to the patient, and we owe him the best protection and care we can give him while he is in the operating room.

"To be sure, there are procedures where technicians can scrub, such as hemorrhoids, pilonidal sinuses, and biopsies; however, I feel that a good scrub nurse is an asset to the patient and the surgeon and also aids in the speed of the procedure, which is very important because of (the possibility of) staphylococcal infections."

Miss Egan, who has had both male and female circulating nurses, prefers the male because men are better able to lift and position patients.

"This job is a very important one and usually is left to the circulator, whether professional or nonprofessional. In this, they are far better than doctors because they do it constantly. For scrubbing, however, I feel that men with no professional background are clumsy with their hands in comparison with females."

When nonprofessional personnel are used as circulators, however, Miss Egan emphasized that one or two graduate nurses must be free to help and supervise them at all times.

What factors are taken into consideration in assigning personnel for surgery? The supervisors agreed generally in their answers. Some of the specific factors mentioned were:

— Type of surgery to be performed. Certain teams are better suited for specialized surgery such as heart cases, neurosurgery, orthopedics, and plastic surgery.

— The condition of the patient and extent of anticipated surgery.

— Surgeon's preference (for personnel whom he likes and believes competent).

— Nurse's preference for a particular type of surgery.

— Consideration for surgeons and nurses who "grate" on one another (personality problems).

— Ability, experience, and adaptabality of the nurse.

— Educational needs of the nurse.

"There can be no set rules governing the selection of persons to function in a particular role in the operating room," Mrs. West pointed out. "Good supervision requires a knowledge of capabilities of personnel. Assignment is made accordingly."

The type of surgery was mentioned by all as an extremely important factor in their decision as to who should scrub and who should circulate. If a patient's condition were critical, Mrs. West said, and it became apparent that a slow scrub nurse would be detrimental because she would delay the case, the more experienced person might be assigned as scrub nurse, assuming that assistance would be available to support the circulating nurse. In an emergency cesarean section, for example, she said, a fast scrub nurse might assist in saving the lives of both mother and infant.

Requirements for Two Positions

Scrub nurse: Bessie L. Bowen, in her list of qualifications for a good scrub nurse, included almost all of those mentioned by the group:

"a. Technically competent (orderly, economical, systematic, knows the principles underlying technics, performs procedures effectively).

"b. Dependable (trustworthy, thorough, conscientious, accurate, and punctual).

"c. Cooperative (intelligently loyal, fair-minded, a good 'team worker,' understands personal relationships and is able to adapt to various types of personalities).

"d. Mentally alert (intelligent, observant to anticipate needs of surgeon, physical and mental stamina, manual dexterity to manipulate instruments and equipment, memory for details).

"e. Healthy — mentally and physically (emotionally mature under normal and emergency situations, able to work rapidly and with accuracy for long periods of time).

"f. Personally responsible (recognizes her spe-

cial responsibilities as a member of a team and a profession; is keenly interested in and actively concerned in the welfare of the patient; works with the realization that errors and incompetence may have serious consequences for the patient; keeps herself informed by reading professional journals, attending and participating in inservice programs."

Circulating Nurse: She should have the same requirements as the scrub nurse, plus, the supervisors noted, an ability to inspire confidence in the patient and in the surgeon; to organize, teach, supervise, evaluate, and direct; to remain calm in emergencies, and to observe the patient carefully and anticipate the needs of the surgical team.

Use of Technicians

All of the eight who replied said that they are now using technicians in some capacity in the operating room. Miss Egan is using them as circulators; Miss Bowen is using nursing assistants to circulate and assist with minor surgical procedures "according to VA regulations."

Sister Jerome Emilian's staff consists of one registered nurse and one technician. The supervisor says: "The interest and self-direction shown by the technician in our team is remarkable, and she has made good use of her opportunities to learn and develop in her particular area of endeavor. For the most part, she is used as the scrub assistant, but on certain occasions she does circulate under the direction of the supervisor or assists the registered nurse who is actually circulating.

"If the day's schedule is such that fatigue is a highly influential factor, it might be that the registered nurse and surgical technician would alternate positions several times, the supervisor then assisting the technician as she circulates for the surgical team. The two staff members function harmoniously, each recognizing the other's areas of responsibility and professional levels."

The Methodist Hospital of Southern California has one technician in the operating room. After three and one-half years of service, she is able to function in practically any area of the department, according to Mrs. West. Her duties consist of assisting in the cystoscopic room, scrubbing for minor cases, and circulating on most major cases. She is always under the supervision of an R.N.

"The surgical technician requires more supervision than the average professional nurse," Mrs. West warned. "Technicians are often more enthusiastic in their desire to serve in the operating room, but let us be understanding and cognizant of their limitations. We realize the necessity in many operating-room departments of employing technicians as a supplement to the professional staff, but there are few instances in which they substitute for skills acquired through the education and background of the professional nurse program."

Their duties should be carefully defined, she emphasized, and consideration given to experience, preparation, and personal aptitude.

At L'Hospital Sainte-Justine, Sister Catherine is using technicians who have experience but no formal training – in ENT, where they scrub exclusively for tonsillectomies; in the cast rooms; and in the septic-technic area, in which are performed such cases as abscesses, rectal and sigmoid examination, infected dressings, and infected ingrowing toenail – but no major surgery.

Mercy Hospital, San Diego, has three male, Navy-trained O.R. technicians and one female technician. "Ninety-nine percent of the time they scrub on the team and are very satisfactory," Sister Alexine reported.

Though technicians are often considered an unstable employee group, the one technician on the O.R. staff at White Memorial Hospital has been there 10 years. He has circulated and scrubbed under supervision of an R.N. In the past, technicians at that hospital have all been scrub nurses, according to the supervisor, Vivian Warren.

At the Monmouth Medical Center, technicians have been used in the operating room for the past six years or more, according to Linda K. Alden. All have been trained on the job in the hospital.

"Some have been instructed in formal, planned classes over a two-month period," Mrs. Alden said. "The first month was a combination of theory with some practice; the second month's training consisted of closely supervised practice with a few formal classes.

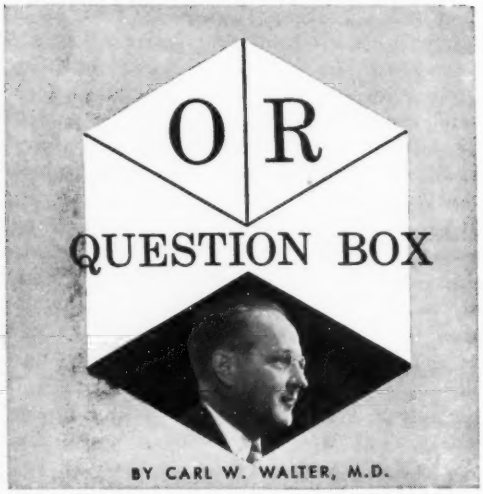
Most of the technicians we have used, however, were not so trained, but have received individual instruction with emphasis on procedures. It appears that the way training is done, provided it is thoroughly done, is not as important as the selection of the personnel. Undoubtedly the individual who was instructed in theory was more informed, knew more anatomy, etc., but those without this type of instruction perform their assignments well whether they are scrubbed or circulating.

"In any case, the technician works under the direct supervision of a registered professional nurse.

"We have also been using attendants, whose training is considerably less than that of the technicians, to circulate for selected cases, although they never scrub, and work under the direct guidance of the scrub nurse.

"We *never* assign two nonprofessionals to an operation, no matter how 'minor.'

"Just because technicians do well in their assignments does not mean that registered professional nurses are no longer necessary in the operating room. I believe that they are more than ever necessary. Because they have been educated to understand total patient care and to perform accordingly, they have the basis on which to build improvements in operating-room nursing care. Operating-room nurses must be encouraged to continue their education so that they are better able to teach professional and non-professional personnel to give better care to the patient."



Assisted by Dorothy W. Errera, R.N.

Q. We sterilize racks of small-gauge hypodermic needles in containers for injections in the recovery room. The racks are in covered cans, and we believe this technic is safe because quantities are small so that one container may be depleted in a few hours; supplies are not carried over from one day to the next; and personnel have been taught to keep the lid off for the shortest possible time when making a selection and to either keep quiet or to wear a mask while choosing a needle — hence, we do not think we have the problem of people "spitting" into the container.

Since it is impossible to sterilize the container on its side without spilling the needles, the question of whether or not we are getting the container sterile has been brought up. How is this done?

A. The two problems are to sterilize the lumen of the needles and to sterilize the inside of the container. The first is accomplished by flushing the needles with distilled water immediately before sterilization. The residual moisture is subsequently heated to steam, which exposes the inner surfaces to microbicidal action sufficient to destroy all resistant organisms in the usual sterilizing cycle of 30 minutes.

If this step is overlooked, the lumen are never purged of air and are exposed only to the dry heat radiated from the outer surfaces, which are heated by direct contact with steam in the sterilizer. Under these circumstances, an exposure of four hours at 250° F. would be necessary to effectively destroy all organisms present in the lumen.

If you will recall the quantitative aspects of steam sterilization (see *Aseptic Treatment of Wounds,* page 59), you remember that 1 cc. of water turns into 865 cc. of steam. Hence, if you are sterilizing racks of needles in containers of about one quart capacity, 2 cc. of water left in the bottom of the container will be turned to steam sufficient to purge air from the container and provide for contact of all surfaces with moist heat.

Q. Given a choice, is there any preference for basins of germicidal solution for hand rinsing in a patient's room over washing under running water with a germicidal soap?

A. Washing under running water with a germicidal soap or detergent served from a dispenser is the ideal method. But hand-washing facilities are not always ubiquitous, and other means for safe skin disinfection must be provided.

A basin of germicide is a suitable substitute, provided quantity and concentration are rigidly policed. Every pair of hands immersed in the basin will remove some active ingredient, dilute the residual, and leave behind enough soil to seriously interfere with germicidal action. Hence, hand basins must be replenished at regular and frequent intervals to maintain an optimum and lethal concentration.

Q. Several third-degree burns over pressure areas in patients after surgery have led us to seriously consider changing our skin disinfection. We currently use consecutive, non-alternating scrubs with tincture of green soap, tincture of a quaternary ammonium compound, and 70 percent alcohol. The burns have occurred in pressure areas during procedures involving more than two hours and in patients without evidence of vascular insufficiency. They have been at the depressed or "puddle" sites of the operating-table pad, and we have concluded they are the results of alcohol and pressure.

A. Another cause of third-degree burns on dependent areas such as you describe is flash fire which results from the ignition of alcohol vapor trapped beneath the drapes by cautery or endothermy used during the course of the operation. Whenever either of these is to be used, skin disinfection should be limited to the use of aqueous solutions of detergent germicides.

Q. Will steam penetrate pus, blood and mucus on dirty instruments?

A. Dried blood and pus can be sterilized by prolonged exposure and heat in a sterilizer. The instrument washer-sterilizer is rapid and superior for the purpose because the soil is solubilized and removed. When heavily soiled instruments are to be terminally sterilized and this type of sterilizer is not available, it is best to immerse the instruments in a pan of non-foaming detergent such as trisodium phosphate and sterilize the pan and contents for 45 minutes at 250° F. Great care is necessary when removing the pan from the sterilizer to prevent spillage and scalding.

The scrub nurse can control the situation somewhat by rinsing bloody, soiled instruments in residual solutions on the field before arranging them for sterilization.

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By Dorothy W. Errera, R.N.

Goldman, Winfrey W. Jr., and Sanford, Jay P.: "An 'Epidemic' of Chemical Meningitis." *Am. J. Med.* 29:94; *July* 1960.

Five full-term, uncomplicated pregnant women in a period of 11 months developed acute purulent aseptic meningitis within 14 hours of spinal anesthesia administered for delivery. The purulent spinal fluid and other symptoms suggested a bacterial meningitis but no organism was ever found on stained smears of cerebrospinal fluid sediment.

After ruling out bacterial causes, the possible non-bacterial causes were explored. It could have been due to trauma with bleeding in the intrathecal space but the cerebrospinal fluid was not bloody or xanthochromic. It could have been anesthetic aggravation of underlying disease of the central nervous system but none could be exhibited. No patient had any symptoms even remotely suggestive of this possibility.

The conclusion that it was an inflammatory response followed and hospital technics were studied. Ampules of drugs, syringes and anesthesia sets were sterilized in heat. Ampules were never soaked in germicide so this documented source of trouble was eliminated as a cause. But for some reason syringes *were* soaked in a phenolic germicide after use before cleaning and resterilization.

After an exhaustive review of technics throughout the hospital, it could only be concluded that the residual phenolic in the syringes was responsible for the meningitis. Chemical contamination of syringes is a serious danger.

Genest, A. S.: "The Air Conditioner as a Vector in Avian Mite Dermatitis." *GP* 22:94; August 1960.

Caution has been urged in locating air intakes for air-conditioning systems to avoid pollution of the hospital atmosphere. Another unsuspected source of trouble is described here—birds' nests.

In this report, three people experienced a sudden onset of dermatitis and pruritus that defied identification. After some time, tiny mites were seen on the victims' bodies and the search for source revealed an abandoned wrens' nest under the air intake of a window air-conditioning unit. The nest and a deserted, moribund chick were infested with the mites. Destruction of the latter two and decontamination of the house and air-conditioning unit with ten percent D.D.T. eliminated the itch.

Singleton, A. O., Jr. and Julian, Jerry: "An Experimental Evaluation of Methods Used to Prevent Infection in Wounds Which Have Been Contaminated with Feces." *Ann. Surg.* 151:912; June 1960.

Wounds were made in a series of guinea pigs, were contami-

(*Continued on next page*)

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nated with direct smears of human fecal material and closed after treatment by one of a group of technics.

One series of wounds was closed 30 seconds after instillation of tincture of green soap, another after scrubbing for 60 seconds with gauze sponges and tincture of green soap. Other series repeated these maneuvers using a hexachlorophene soap; another, a detergent containing hexachlorophene; and a final series was closed after irrigation with 30 cc. of a one percent kanamycin solution.

Pus at 72 hours was considered indication of infection.

Scrubbing was considerably more effective than simple instillation (16 percent of the wounds in the former group were infected in contrast to 33 percent in the latter). The detergent-germicide and germicidal soap were comparable in action. The tincture of green soap was relatively ineffective, with 40 percent of wounds being infected after scrubbing, 46 percent after instillation.

Ten percent of the wounds treated with the antibiotic were infected. The results being so equivalent to those obtained by scrubbing with the germicidal agents (16 percent), the authors suggest that there is little justification to using the antibiotic technic, considering the unfortunate sequelae of undisciplined antibiotic therapy.

The technic is suggested as one suitable for use when a wound becomes contaminated at the time of bowel surgery.

Adams, Ralph: Trainor, James H.; and Corell, Robert: "Plastic Film Passes Tests for Surgical Use." *Modern Hospital* 95:132; Oct. 1960.

Transparent polyvinyl chloride film used in surgical drapes was found to be an excellent insulator when tested in the laboratory and in the operating room; a potential of two to three thousand volts was found on the loose edges of the film beyond that portion in contact with the patient. But when wet or tacky, the adhesive offers practically no resistance to conductive surfaces, and insignificant electric potentials were found where the plastic contacted the adhesive.

During manufacture a high potential of static electricity is built up on the drape, which is dissipated by the moisture of steam sterilization. But, as a result of steam sterilization, the drape sticks to the paper interfacing, and when these are separated at the time of use, there is enough friction to produce a high potential of static electricity.

This hazard is removed simply by wetting the drape or by having it contact a moist towel or drape.

The laboratory and clinical tests have convinced the investigators that in an operating room organized to meet the standards of grounding and conductivity outlined by the National Fire Protection Association, plastic (polyvinyl chloride) drapes are safe for use in the hazardous area.

King, John Harry, Jr., and Chavan, Shankar B.: "The Preservation of Eye Tissues. Part 3—Current Status in Transplantation." *Bull. Georgetown U. Med. Center* 13:87, November 1959.

Cornea, conjunctiva, sclera, and vitreous can be preserved and stored for elective surgery.

Cornea may be dehydrated in 95 percent glycerine, sealed under vacuum, and stored at room temperature.

Vitreous may be lyophilized (rapid freeze-dried), vacuum-sealed in tubes, and stored at room temperature.

Conjunctiva and sclera may be dehydrated and freeze-dried with or without glycerine pre-treatment. There is no data available on results with human transplants, but in animals, normal conjunctiva and sclera were indistinguishable from transplanted tissues once healing was complete.

Lens have not been successfully preserved or transplanted.

"Lord knows I'm not one to discourage personal enterprise, Halquist, but . . . "

Central Supply

A Sterile, Disposable Catheterization Tray

By William P. Murphy, Jr., M.D.*

Ideal technics of patient treatment require sterile equipment used according to procedures which are evolved to minimize the likelihood of contamination and the incidence of cross infection. Disposable, factory-produced equipment, introduced by the hospital trades during the past 20 years, has made this ideal a reality for many hospitals. Parenteral solutions, blood-processing equipment, syringes, and needles are examples of equipment produced and distributed by the allied hospital industries at costs compatible with the budgets of many hospitals.

Members of the medical professions have been quick to appreciate the need for economically produced, sterile equipment, but widespread acceptance has been delayed because of isolated incidents of equipment failure usually related to that produced by unqualified manufacturers. Selection of disposable supplies should be based on critical evaluation of the product and its producer. The quality of product will be directly proportionate to the integrity and reliability of the manufacturer. The latter is one who actively coordinates product development with patients' needs and who has accumulated the experience and knowledge essential for working with the critical materials involved.

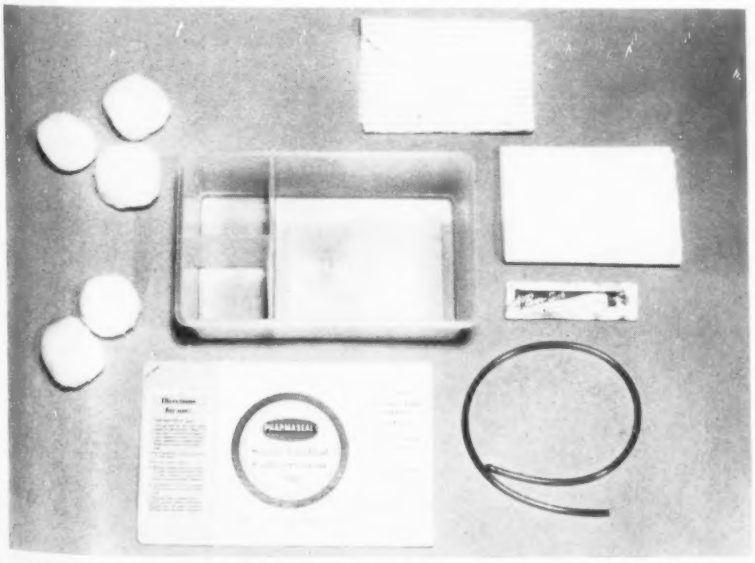
Plastic materials have been used extensively in the fabrication of disposable equipment because they are amenable to economical, automatic mass production. Careful investigation of both physiologic compatibility, toxicity, and so on, and the many parameters of production and sterilization, is essential before any plastic can be declared suitable for use in the human.

The unfortunate sequelae of infections following the emergence of antibiotic-resistant organisms in hospitals and communities are well documented, and the need for return to rigid aseptic technics in patient treatment is repeatedly emphasized in the medical literature. Technics of terminal disinfection are too often inadequate, and reprocessing of used equipment is accompanied by the risk of infection to both employee and subsequent patient. Disposable equipment contributes to the control of cross-infection in this area.

Despite impressive advances in the design and manufacture of sterilizing equipment the human element continues to negate the

(Continued on next page)

*Research associate professor, Department of Medicine, University of Miami (Fla.) School of Medicine.



Contents of a tray. (See story)

most elaborate of sterilizing controls by ignorance of technics of packaging, loading, and sterilizer operation. Quality control of hospital-sterilized equipment depends on the knowledge and integrity of the supply room worker and sterilizer operator. Periodic bacteriological cultures measure efficiency for the single instance, but sterility of individual packages and kits is directly related to knowledge and practice of the technics of sterilization.

Sterile hospital products distributed nationally by manufacturers, however are subject to stringent Federal Food and Drug Administration (FDA) regulations which require that confirmation of bacteriological investigation be available from the manufacturer to support the label of "sterile." Lot numbers are used to relate each unit to appropriate culturing programs.

Caution is necessary in reading the labels of commercially-produced equipment, and the word "sterilized" implies that a package and its contents were once exposed to a process to destroy pathogenic organisms but the manufacturer assumes no responsibility for the sterility of the contents of the package at the time of use. If asepsis is required, resterilization in the hospital is necessary. This is accompanied by risk, because packaging materials may be impervious to steam—the sterilizing medium in use in most hospitals—and the contents may be destroyed by the high temperatures of steam sterilization.

Poor package design can frustrate the best sterile practice. A well conceived package is one which can be opened without the use of a sterile instrument; one from which the contents can be extruded or removed without contamination; one which makes its own sterile field, if necessary; one which can be stored safely without fear of contamination from moisture or condensate; and one which introduces no unusual problems in disposal.

The latter is worthy of consideration. Destruction of expendable supplies in the volume currently used in many hospitals does tax existing incinerators, and since it is predicted that the use of these materials will increase in the next decade there is reason to explore the installation of more efficient equipment where necessary.

The sterile urethral catheterization tray* recently introduced to hospitals has been conceived to meet the qualifications outlined above and to satisfy a need in patient treatment. The kit contains all the equipment for catheterization and drainage of the male or female bladder, except antiseptic solution and rubber gloves. It includes a three-compartmented plastic tray. Two of the latter contain five absorbent cotton balls for cleaning

(*Continued on page* 101)

* Produced by Pharmaseal Laboratories Inc., Glendale, California.

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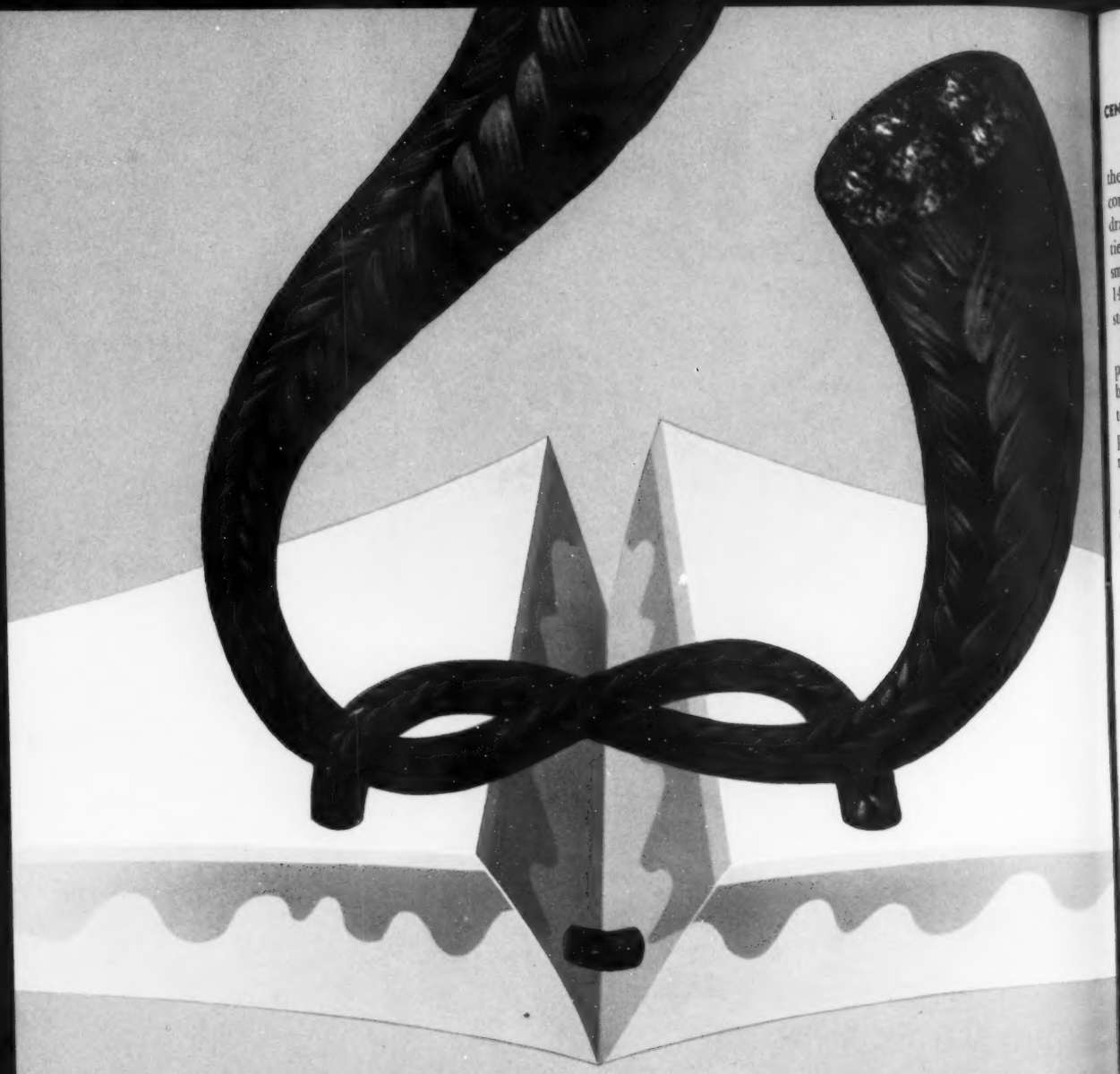

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(*Continued from page* 98)

the labia and meatus. The larger compartment holds a waterproof drape to be placed under the patient's buttocks; a conventional, small, single-opening drape; a No. 14 French plastic catheter and sterile lubricant.

The tray and its contents are packaged in a covered cardboard box. The unit is wrapped in a tough, abrasion-resistant, waterproof, plastic film and sealed to maintain sterility.

At the time of use, the film is stripped off the package, the covered cardboard container preserving sterility of the inner plastic tray and its contents. The cover is bent back while antiseptic solution is added to the cotton balls and is then replaced. The package and a pair of sterile gloves are taken to the patient's bed. The patient is positioned and draped as usual. When the plastic tray is removed from the box, the latter serves as a waste receptacle. After catheterization urine is collected in the large volume (800 ml.) graduated compartment of the plastic tray. At the end of the procedure, the catheter and drapes are discarded in the cardboard box; the urine is spilled in a hopper and the whole unit is discarded for incineration. There are no materials involved which will resist destruction in the usual incinerating process.

SUMMARY: Certain aspects of sterility of disposable hospital supplies are considered, including the integrity of individual manufacturers and the implications of "sterile" vs. "sterilized." The role of single-use equipment in preventing cross-infection is discussed. The requirements for efficient, safe packaging are outlined. A disposable, sterile urethral catheterization tray is described.

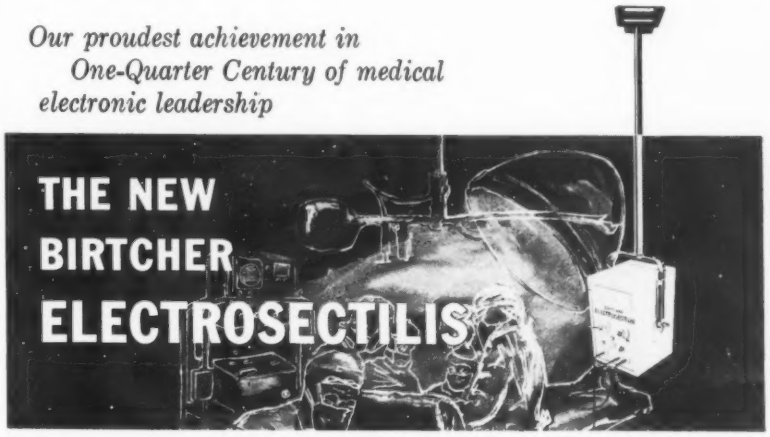
Vacuum in Head Helps Sinusitis Victims

A simple new technic involving a plastic squeeze bottle and a partial vacuum has produced good to excellent results in 100 patients with acute and chronic sinusitis, according to Eduardo R. Pons, Jr., M.D., New York City.

A plastic spray bottle, filled with neomycin, gramicidin and phenylephrine, is capped with a special nosepiece designed to fit snugly into the nostril. The patient first squeezes the medication into his nose, then creates negative pressure by pressing the other nostril shut and swallows with mouth closed. During the swallow, the squeeze bottle is released, sucking air out of the nose, forcing the blocked sinus passages open and releasing trapped air in the sinuses.

When the swallow is over and the mouth and nose open, the return of normal pressure to the nose carries the medication through the opened sinus passages into the sinuses.

Our proudest achievement in One-Quarter Century of medical electronic leadership



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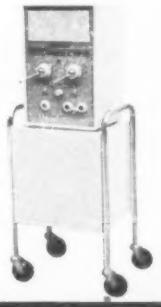

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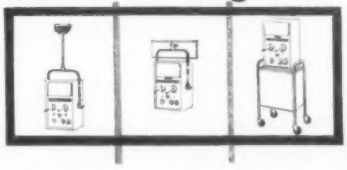

FOR DETAILED DESCRIPTIVES PLUS A FULL SIZE PICTURE OF THE NEW ELECTROSECTILIS WRITE TO MR. DONALD HUNT, ELECTROSURGERY DIVISION MANAGER

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Single Trademark, Stricter Patent Laws Suggested by Physician

Steps aimed at solution of some of the current problems of the pharmaceutical industry are suggested by Harry F. Dowling, M.D., professor of medicine and head, department of medicine, University of Illinois College of Medicine, Chicago, in a recent issue of the *New England Journal of Medicine* (January 12, 1961).

One of his recommendations is that only a single trademark be granted for a particular drug.

Criticisms of the pharmaceutical manufacturers have fallen into two categories, Dr. Dowling points out: those directed against high drug prices, and those which maintain that the high-pressure promotion of drugs is not only unnecessary and expensive but also actually harmful, in that it may induce the doctor to prescribe the wrong drug.

The research whch produces new drugs must be financed, Dr. Dowling declares, and agrees generally with the industry's claim that capital for this purpose can come only from profits, unless research is to be financed by the federal government.

How can one be sure, he asks, that a proper share of profits will go into research and not into wasteful competition or excessive dividends? He recommends: (1) that the intense competition prevailing in the drug industry be shifted from the present focus upon slight modifications of existing drugs to the discovery of truly new drugs, and (2) that the channels for transmitting information on drugs to physicians be cleared and widened by improving facilities for and the prestige of the clinical testing of drugs, establishing and adhering to a code of ethics on advertising of drugs, and educating physicians more thoroughly regarding nonproprietary names, analogs, uses and toxic effects of drugs.

To accomplish these objectives, he makes the following suggestions:

1. The company which makes an original breakthrough should have more protection against competition than the present laws give it. Legislation should be enacted allowing only a single trademark to be granted for a particular drug.

2. The profits made under the protection afforded by this proposed legislation should be used for research to discover more new drugs—not for marketing the drug. To help achieve this goal, the discoverer should be required to license other companies to manufacture and distribute the drug for a reasonable royalty – under the trade name issued.

If another company preferred not to purchase the right to use the trade name and devised an independent method of manufacturing the drug, Dr. Dowling suggests, it could market the drug under the generic name. The physician and the pharmacist would thus have to remember only one trade name.

A physician who had preference for the products of a particular company could still prescribe the generic name of the drug followed by the name of the company he preferred.

3. To make it less profitable for companies to introduce modifications of existing drugs, the patent laws should be made more strict, so that the superiority of a new drug over drugs already patented would have to be proved before a

(*Continued on next page*)

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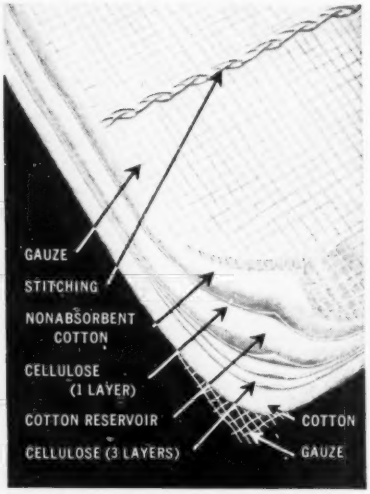

NEW LAMINO® PADS

by SEAMLESS

New Lamino pads afford the ideal balance of cellulose for spreading drainage and high-grade cotton for greatest absorbency. The new *stitched* gauze covering provides a soft surface, yet is remarkably strong even when wet. This unique construction contains drainage, without puddling, more efficiently than with other pads, and simplifies handling after use. For moderate drainage, single Lamino pads, with nonabsorbent cotton to protect bed linens, can be used alone. For heavy drainage, several "all-absorbent" Lamino pads are recommended.

Lamino pads are available in various sizes, or in rolls 8" x 20 yds. when pads of many different lengths are required. See your hospital supplies dealer about sizes and quantity prices.

HOSPITAL DIVISION
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new patent was issued.

4. The Food and Drug Administration should be empowered to determine the efficacy as well as the toxicity of drugs. Also, nonproprietary names should be emphasized more than they are at present.

5. A council and panel of experts should be set up to advise the FDA.

6. FDA appropriations should be increased for the above purposes, and also to provide for better control of the standards of quality of drugs and contracts for the independent testing of drugs by outside agencies.

7. If drug advertising is not brought under better control by the pharmaceutical manufacturers in cooperation with the medical and dental professions and pharmacists, legislation should be enacted for stricter federal control of such advertising.

Change in Product Emphasis Called for by Consultant

A consultant to the pharmaceutical industry has called upon the industry to place more emphasis on supplying drugs for maintenance therapy of victims of chronic disease, and also on keeping drug costs down.

Nothing comparable to the dramatic medical therapy conquests of the last 50 years is likely to be seen again, predicted Paul de Haen, New York City, in his sixth annual review of new pharmaceutical products. As a result of this "miracle era," he points out, there is a continual increase in the proportion of aged in the population. Furthermore, because of the fanfare which has accompanied each conquest, the general public had acquired much more knowledge and interest in health care, and has developed heightened critical faculties.

Because people are living longer, Mr. de Haen points out, the pharmaceutical industry must expect to supply an ever-widening market of aging persons who require primarily chronic-disease therapies. The emphasis must be less on drugs for short-term therapy of infectious disease and more on drugs for maintenance therapy. And since the patient taking these drugs may have to take them longer, at a time when his earning power has either dwindled or is non-existent, there must also be emphasis on keeping drug costs down.

"The wise industrialist will adjust his sights to this narrower perspective, and possibly learn to operate on a basis of longer-term financial expectancy, with perhaps decreasing product obsolescence," Mr. de Haen declared:

"The alternative, that the cost to the patient of maintenance therapies should continue to be in any way comparable to the cost of Short-term therapy of infectious disease, is simply unrealistic, and could lead only to solutions highly distasteful not only to the industry but to the medical profession as well."

During the year 1960 the United States pharmaceutical industry introduced 311 new products, approximately the same number as in 1959, Mr. de Haen reported.

Of the 311, however, he said, only 45 were new chemical entities, as compared to 63 in 1959. But the decrease was primarily in the group represented by derivatives of presently-known chemical structures and new salts of old products; new original molecules developed in this country actually increased from 16 to 19.

Some of the new products, by category, were:

Analgesics and anesthetics: Alvodine (piminodine—Winthrop), a piperidine derivative said to be effective in low dosage and to cause almost no drowsiness or euphoria; Analexin (phenyramidol HCl.—Ir-

win, Neisler), a potent analgesic and muscle relaxant; Brevital (methohexital sodium-Lilly), a short-acting intravenous anesthetic; and Carbocaine (mepivacaine HCl.–Winthrop), a rapid, long-acting local anesthetic.

Cardiovascular agents: Miradon (anisindione—Schering), an anticoagulant requiring a single daily administration, and Ismelin sulfate (guanethidine—Ciba), a potent hypotensive, which acts at the nerve-arteriole junction by opposing the release of norepinephrine.

Benzothiadiazine derivatives: Naqua (trichlomethiazide—Schering); Enduron (methyclothiazide – Abbott), and NaClex (benzthiazide—Robins). Several combinations of diuretics with the tranquilizers rauwolfia and meprobamate were also offered.

Nonmercurial oral saluretic and hypotensive agent: Hygroton (chlorthalidone—Geigy), a phthalimindine derivative.

Hypocholesterolemic agent: MER/29 (triparanol — Merrell). Triparanol is said to interfere with the final step of the synthesis of cholesterol by the liver and other organs by inhibiting the conversion of 24-dehydrocholesterol or demosterol to cholesterol.

Antiobiotics: Staphcillin (sodium dimethyoxyphenyl penicillin—Bristol), given exclusively by the parenteral route, and intended for use in the treatment of staphylococcal infections resistant to other penicillins; and Humatin (paramomycin—Parke, Davis), for the treatment of amebiasis and bacillary dysentery. Humatin resembles bacitracin in that its absorption by the intestinal tract is negligible.

A new salt of bacitracin, methylenedisalicylate, has been developed by S. B. Penick & Co., and it is suggested that having this antibiotic available in a more economical form may widen its application in conjunction with the chemotherapy of amebiasis. The first combination product of this type was marked by the Chicago Pharmacal Co. under the name of Anameba.

Vaccines: Purivax (Merck Sharp & Dohme), a killed-virus polio vaccine of greater potency than those previously made; multiple vaccines against tetanus, diphtheria, pertus-

(*Continued on page* 128)

prescription pad

Collagen Disease Relief

Adenex, an injectable solution for symptomatic relief in collagen diseases, varicose vein complications and certain dermatoses, is being marketed by Minnesota Pharmaceutical Laboratories, Inc. Each ml. contains 25 mg. adenosine-5-monophosphate sodium, and 100 mcg. cyanocobalamin.

Available in 10 ml. multiple dose vials.

Isotope Indicator

Radio-Hippuran sterile solution (I^{131}) has been introduced by Abbott Laboratories, who recommend it as a fast and precise method of comparing renal clearance as an index of kidney function. Radio-Hippuran is radio-iodo-hippurate sodium (I^{131}), supplied as a sterile, pyrogen-free solution in rubber stoppered vials. Each ml. contains 0.2 to 1.5 mc. I^{131}.

Ophthalmic Suspension

Burroughs Wellcome & Co., Inc., announces the introduction of Cortisporin, a new ophthalmic suspension, and recommends the product for conjunctivitis, blepharitis, anterior uveitis, chemical and thermal burns of the cornea, and several other conditions.

Cortisporin is said to reduce inflammation and edema, relieve

(*Continued on next page*)

WORLD'S THINNEST GLOVE

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pain and itching, and permit healing with minimal scarring. Each cc. contains 10,000 units Polymyxin B Sulfate, 5 mg. neomycin sulfate, and 10 mg. hydrocortisone (one percent) in a sterile saline vehicle isotonic with tears. Sold in bottles of 5 cc. with sterile dropper.

Diet Control

Tenuate Dospan, a new prolonged action tablet for hunger control, is recommended by the manufacturer, the Wm. S. Merrell Co., division of Richardson-Merrell, Inc.

Because of an almost complete lack of CNS stimulation, Tenuate is particularly indicated for obesity complicated by cardio-vascular disease, diabetes, or pregnancy.

Supplied in bottles of 100 tablets, each containing 75 mg. of Tenuate.

New Cold Tablet

Win-Codin, containing codeine, Neo-Synephrine, aspirin, chlorpheniramine maleate, and ascorbic acid, is being manufactured by Winthrop Laboratories. It is suggested for the relief of symptoms of the common cold.

Supplied in bottles of 100 tablets.

Allergy Relief

Vistaril, a psychotherapeutic manufactured by Chas. Pfizer & Co., Inc., is recommended by the firm for relief from a variety of allergies including hay fever and urticaria. According to Pfizer, Vistaril also has provided a considerable degree of relief in drug allergies by controlling pruritis.

Supplied in capsules of 25, 50, and 100 mg.

Arrhythmia Treatment

Cardioquin, a new organic quinidine molecule (quinidine galacturonate) for the treatment of cardiac arrythmias has been introduced by the manufacturer, Purdue Frederick Co. The firm reports its studies show that the drug restores normal sinus rhythm in patients with arrhythmia without the undesirable gastro-intestinal side effects which limit the effectiveness of conventional quinidine salts.

Supplied in bottles of 50 tablets.

Nasal Decongestant

MSC Triaminic, manufactured by Dorsey Laboratories, a division of the Wander Company, is marketed for the promotion of drainage of nasal and paranasal passages, and to prevent or arrest histamine-induced damage.

The preparation contains 50 mg. phenylpropanolamine hydrochloride, 25 mg. pheniramine maleate, 25 mg. pyrilamine maleate, and 4 mg. methscopolamine nitrate.

Supplied in bottles of 50 timed-release tablets.

Vasodilator

Roniacol, recommended by the manufacturer for the treatment of diseases associated with impaired peripheral circulation, has been released by Roche Laboratories division of Hoffman-La Roche, Inc.

The Roniacol Timespan tablet contains 150 mg. Roniacol Tartrate in a slow-release form, and relieves symptoms of certain circulatory disorders for approximately 12 hours.

Available in red, sugar-coated tablets, in bottles of 50.

Gastric Acid Inhibitor

According to McNeil Laboratories, Inc., Nacton selectively inhibits hydrochloric acid formation at its source — the parietal cell — without reducing the protective alkaline nonparietal secretions of the gastric mucosa.

Nacton is recommended in treatment of peptic ulcer, hyperchlorhydria, pancreatitis, "dumping syndrome," and other similar conditions.

Available as 4 mg. scored tablets, in bottles of 100 and 500.

New Steroid

A newly developed anabolic steroid, Adroyd, has been introduced by Parke, Davis & Company. It is intended primarily for persons who need supportive treatment to help restore or maintain proper metabolic balance, as in post-surgical, postinfectious, and convalescent patients.

Adroyd (oxymetholone) is supplied as 10 mg. scored tablets in bottles of 30.

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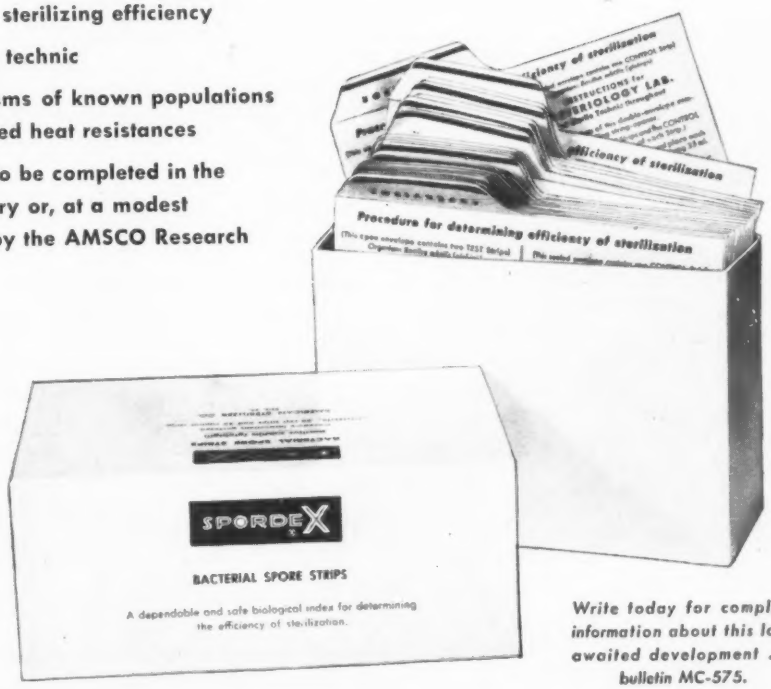
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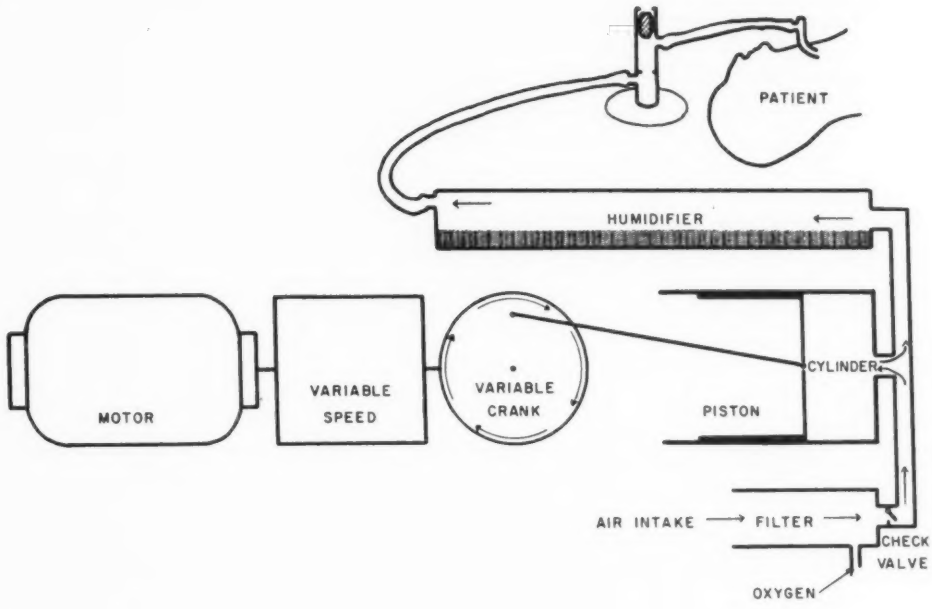
For further information see postcard opposite page 150.

CRUSHING INJURIES OF THE CHEST

Breathing done for the patient to produce alkalotic apnea



Prolonged passive hyperventilation by means of fixed volume intermittent positive pressure has aided dramatically in saving lives of patients with severely crushed chests — lives which once would have been considered hopelessly lost.

The method replaces the alternating positive and subatmospheric pressures of active respiration, and provides, in effect, "internal pneumatic stabilization." This eliminates paradoxical respiration and overriding of costal fragments, and can replace all external means of chest wall stabilization. It prevents hypoxia and hypercarbia, and produces a mild sedation.

By maintaining a short positive pressure phase between extended pauses, circulation and blood chemistry are not seriously altered. No later ill effects have been seen.

The equipment used in this technique is the Mueller-Mörch Piston Respirator, which provides a constant stroke volume which may be adjusted from 0 to 3,600 ml. It pumps room air or oxygen mixture through a humidifier to the tracheostomy tube, with a specially designed check-valve in the system near the tracheostomy tube to ensure exhalation as soon as the desired stroke volume has been delivered to the lungs.

Since the Mueller-Mörch Respirator has sufficient stroke volume to compensate for laryngeal leakage, an uncuffed tracheostomy tube is preferred. The uncuffed Mörch swivel tracheostomy tube delivers adequate ventilation, also prevents excessive pressures in the lungs, and stops secretions from entering the trachea by blowing them toward the mouth where they are easily accessible to the nursing staff. The considerable disadvantages of the cuffed tube are eliminated.

The Mueller-Mörch Piston Respirator is easily adjusted by balancing the stroke volume and rate of respiration against the patient's tracheobronchial resistance and pulmonary compliance. Alveolar CO_2 tension is lowered just to the point that renders the patient apneic.

The unit is compact, and built to operate over prolonged periods without need of servicing. It is designed to fit under most hospital beds. May be used to continue therapy in automobile, ambulance, aircraft—an auxiliary hand bellows is incorporated for such use — or in case of electrical power failure, as well as in transportation of patients to other parts of the hospital.

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Accuracy and Error in the Lab—Part 2: Factors in Accuracy

By E. E. Myers, M.D.*

In this second article on accuracy and error in the laboratory, the many factors in accuracy will be listed—first in outline form, from the more general to the specific. Beginning with this article, the listing will then be enlarged upon and illustrated, continuing next month.

FACTORS IN ACCURACY

1. Arrangement in the laboratory: departmental arrangement, space, efficiency, noise.

2. Scientific atmosphere in the laboratory: supervision, direction, rules and regulations, library, conferences, ideals of service to clinician and patient, morale.

3. Individual qualities of medical technologists: native ability, education, experience, technical skill, attitudes, working speed, "the personal equation," honesty, carefulness, attention to detail, habits, physical characteristics, psychological factors.

4. Obtainable accuracy: inherent or unavoidable errors in the test, significant figures.

5. Desired accuracy: accuracy necessary or desirable for clinical purposes.

6. Selection of tests and technics: suitability for the particular laboratory and person doing tests, technic manuals, new tests.

7. Materials, chemicals, and reagents: source, quality, storage, deterioration.

8. Equipment and apparatus: selection of, cost, sensitivity, calibration, care in use, maintenance.

9. Specimens: collection, preservation, deterioration, selection of portion, relation to other persons and departments.

10. Patient: fasting state, nervousness, cooperation, malingering.

11. Environment: temperature, barometric pressure, humidity, contamination.

12. Performance of the test: technic, time element, relation to other tests.

13. Clerical: labeling, recording, writing and copying of reports, involvement of other hospital departments.

14. Controls—general:

a) Standards: source, type, reliability, method of checking.

b) Normal control: single specimen, pooled specimen.

c) Positive and negative controls.

d) Statistical control: repetition of tests, percentages, averages, evaluations, reproducibility.

e) Control in time: comparison with previous results.

f) Duplicate analyses.

g) Reverse approach check.

h) Two-procedure check.

i) Two-person check.

j) Two sources of materials check.

k) Correlation with other tests.

l) Clinical correlation.

m) Reference laboratory.

15. Controls—specific:

a) Selected for each test.

b) Allowable variation.

ARRANGEMENT

The laboratory should be arranged by departments with sufficient separate working space for each test or similar groups of tests, and sufficient floor space and table space per technologist.

Efficiency is closely related to accuracy. Careful study should be made to provide maximum working efficiency. Noise and distraction should be minimum, since they prevent concentration and contribute to error. Optimum lighting will help avoid the fatigue due to eye strain, and will otherwise promote efficiency.

Arrangement should be such as to make it as easy as possible for the technologist. Time-saving devices and worry-saving devices will help prevent error.**

SCIENTIFIC ATMOSPHERE

Everyone in the laboratory should have as his guiding principle the performance of the highest possible type of scientific work as accurately as required for the particular test. The director of the lab is responsible for the development of this atmosphere by precept and example, and by encouraging self-discipline.

Everyone should expect close analysis of all phases of the work and open discussion of all possible sources of error. Technics should be carefully selected, adapted, and

(*Continued on page* 112)

*Director, clinical and research laboratories, The Myers Clinic and Broaddus Hospital, Philippi, W. V.

**These factors are discussed in a previous series, "Efficiency in the Laboratory," *Hospital Topics* Jan. 1954-April 1955; available in reprint.

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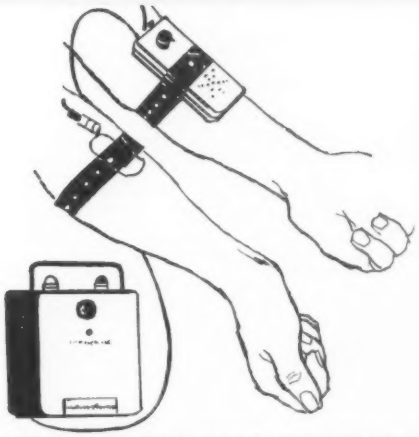

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FACTORS IN ACCURACY

(*Continued from page* 109)

applied through a system of direction and supervision. Accurate results cannot be expected where slipshod methods are tolerated.

New tests must be critically evaluated. A research attitude should be maintained, even for routine tests.

An adequate library with reference books should be available in the laboratory as an encouragement to look up data when questions arise.

Conferences of the director with all laboratory personnel and with individual departments are needed frequently to keep everyone alert and responsive to his resposibilities. Persons doing tests should feel responsibility toward the patient; this will make them more careful.

Good morale, or *esprit de corps*, is probably the most important factor in good, accurate, dependable laboratory work—which may be summarized as everyone trying hard to do the best he can for the laboratory, clinician, and the patient—and enjoying it. If students are taught, special precautions must be used to avoid errors.

(Many of these points are presented in "Training Medical Technologists." HOSPITAL TOPICS, Jan.-Oct., 1959; available in reprint.)

The third article in this series will appear next month.

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Highlights of NCCMT's Annual Report

Getting set to meet problems created by the change from two to three years of college prerequisite for admission to AMA-approved schools of medical technology after January of next year has been a major focus of activity, the National Committee for Careers in Medical Technology states in its "Annual Report."

Although enrollment in AMA-approved schools last year continued its upward trend – from 3209 students to 3553 – the change to three years plus one poses severe recruitment difficulties in a possible one-year gap in enrollment. Efforts to ease the lost year of enrollees included a new brochure ("Announcing New Academic Requirements and Science Prerequisites for Medical Technology"), mailed to educational and counseling personnel in schools; another brochure, mailed to executive secretaries of medical societies; revision of existing literature and films; and an informational campaign for key audiences.

In the scholarship field, guidelines were developed for a nationwide program to make medical technology available to more students, a state-by-state listing of sources of aid was compiled and published, and a scholarship bank —through which local or state committees can deposit funds NGCMT will disburse for them at their authorization – was formed.

Two new scholarships were announced.

A three-year pilot study of curricula, technics, and materials for medical technology and cytotechnology instruction at AMA-approved schools in Alabama was inaugurated.

Requests for information and orders for printed materials from the Registry of Medical Technologists continued to increase. In 1959-60, the Registry distributed 334,888 pieces of printed matter against 288,848 the previous year.

Medicine, Math Merge in CP Fight

Statisticians are joining medical men in the war against cerebral palsy. They believe that "clusters of occurrences" among the thousands of cases they are studying will narrow the search for causes of and preventive measures against the illness.

The government project has enlisted the services of private firms, hospitals, and government institutions. Planned as a five-year study, the paperwork begins with data-gathering interviews and observations. The confidential forms are coded and passed on by statisticians to research obstetricians and pediatricians for interpretation.

The study thus far is based on the social, economic, and medical backgrounds of 50,000 pregnant women. Additional study will center on the pregnancy as it progresses, the delivery of the child, and its early growth.

Diabetes Eye Disorders Due to Fats

Long term complications of diabetes including damage to tiny blood vessels of the eye appear to be due to an excess of fats in the blood, rather than sugar excess.

John K. Finley, M.D., associate professor of ophthalmology at Hannemann Medical College, Philadelphia, has reported there is also new evidence that the degenerative changes in the eyes can be reversed by eliminating fats from the blood.

Diabetes is the second-ranking cause of blindness in the U. S.

Starting with ten diabetic patients, Dr. Finley prescribed orally administered heparin over a period of 18 months. Frequent examinations of the eyes for presence of fat-laden cells, recently shown to be a direct cause of diabetic blindness were also done.

Although no major changes were expected for several years since the disorder is slow in onset and should therefore also be slow to resolve, definite retrogression has been seen in the eye lesions.

The tiny blood vessels of the eye, long swollen by presence of the fat-laden material, responded more slowly, and this effect of heparin therapy was more difficult to observe, added Dr. Finley. However, in the four patients in whom definite improvement was seen, repeated careful observation of small areas of the retina showed that the vessels were gradually losing their redness and were decreasing in size.

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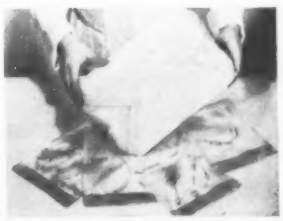


For further information see postcard opposite page 150.

HOSPITAL Topics

BUYER'S GUIDE

For further information on any of the products, please check the Buyer's Guide number on the reply card opposite page 150.

700. Rectalyt

New rectal medication and application combined in a single unit is a water-miscible polymer vehicle containing hydrocortisone and the new sulfonamide, sulfauridin. Because of the polymer base, the active ingredients cling to the walls of the rectal canal and spread upward into all folds, cracks and crevices in an ever-widening area along the lining of the rectal pouch. Does not have to melt to be therapeutically active; instantaneously effective when anorectal swelling and pain are problems that can be remedied by topical medication. Adheres to wet or dry surfaces, controls inflammation, facilitates wound repair, minimizes postoperative scarring. Disposable container-applicator does not soil hands or clothes. Mallon Division, Doho Chemical Co., 100 Varick St., New York 13, N.Y.

701. Stretcher blanket

A combination compact stretcher and extra tough blanket makes casualty handling and removal faster and more efficient. Made of vinyl-coated nylon fabric, it is highly tear-resistant, waterproof, flame- and mildew-resistant. Six feet by six feet, with large metal eyelets to permit lacing shut or using with rope as a lowering sling, it has four web straps with loop handles which can be used with or without poles. Can-Pro Corp., 19 E. McWilliams St., Fond du Lac, Wis.

702. Alco-Rub

A spray-on product, Alco-Rub with G-11, Hexachlorophene, is ideal for use as a disinfectant for diagnostic instruments, ultrasonic transducers, diathermy applicators; as a spray for skin preparation before hypodermic injections; and as a refreshing alcohol spray, effective against contact dermatitis, for massage, bath, or rub. Affords fast, convenient method of guarding the patient against cross-infection from table tops, instruments. In 6- and 16 oz. sizes. Schuco Industries, Inc., 75 Cliff St., New York 38, N.Y.

703. 10-second x-ray

New radiographic process that reduces x-ray exposure by approximately 80 percent and produces finished pictures in 10 seconds has been announced by Polaroid Corp., Cambridge, Mass. Called MD/RR, process is 10 to 15 times more sensitive than conventional technics. Features dry development; needs no chemicals or darkrooms. X-ray packet can be handled and loaded in broad daylight; finished radiograph is a positive print on photographic paper. Contrast and detail visibility are more than adequate for the study of gross fractures, dislocations, hip pinnings and many surgical procedures involving contrast media such as T-tube cholangiograms. Associated equipment manufactured by, and distribution handled by Picker X-Ray Corp., 25 S. Broadway, White Plains, N.Y.

704. Portable wheel stretcher

New stretcher, which lifts off a portable base, makes lifting easier and patient more comfortable during transfers. It is estimated the lightweight, waterproof stretcher eliminates eight or nine body movements—the patient remaining on it from the scene of the accident, through examination, x-ray (it is transparent to x-ray), to OR or bed. Folds to 5" width. Orthopedic Frame Co., 420 Alcott St., Kalamazoo, Mich.

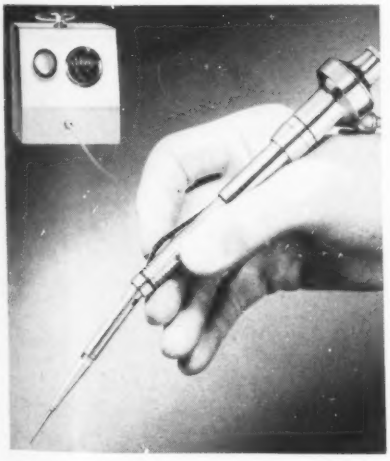
Contributions to this department are welcome, but copy and photographs cannot be acknowledged or returned. Please include the brand name, if any, together with the complete name and address of the manufacturer. Send releases to the attention of the New Products Editor, Hospital Topics, 30 W. Washington St., Chicago 2, Ill.

705. Spray-on dressing

Clear, transparent Aeroplast is now available in all three sizes of aerosol containers: 12-oz. for surgery; 6-oz. for general utility; 3-oz. for doctor's bag, office, or hospital dressing carts. Developers report routine application has done away with the need for the pale yellow tint which was added to the product when it was introduced to aid in defining the dressing area and help avoid excess application. Clinical reports demonstrate the part dressing can play in controlling surgical wound infection, protecting against excoriation of skin, and in treating and helping avoid decubitus ulcers. Aeroplast Corp., Dayton 3, O.

706. Beverage server

Disposable beverage pitcher holds full quart; snap-on stainless steel lid is sold separately. Used for one patient only, there is little danger of contamination or cross-infection. Colonial Hospital Supply Co., 5115 Ravenswood Ave., Chicago 40, Ill.



707. Surgical air drill

New surgical drill is entirely air-powered-wholly free from electrical connections, and wholly explosion-proof. Provides the surgeon with fingertip control of precise cutting burrs and drills rotating at smooth, powerful, vibration-free speeds up to 60,000 rpm, compared with the 13,000 to 18,000 rpm of conventional electric engines. Cool, quiet, lightweight. V. Mueller & Company, 330 S. Honore St., Chicago 12, Ill.

708. SBT-12

New hospital antiseptic spray kills on contact hospital patheogens including antibiotic-resistant staphylococci. Fast, effective treatment of all surfaces. Especially useful in operating and isolation room areas. Non-irritating, non-corrosive, extended residual activity. Lever Bros. Company, 390 Park Ave., New York 22, N.Y.

709. Zephiran

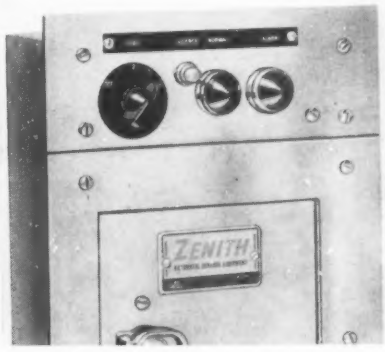
New spray provides quick over-all skin disinfection with Zephiran Chloride (brand of refined benzalkonium chloride) tinted tincture 1:750 in aerosol form. Contains washable coloring agent that outlines the area of application. Winthrop Laboratories, 1450 Broadway, New York 18, N.Y.

710. Surgeon's scrub file

New scrub file of stainless steel is designed as a companion piece to the surgeon's all-nylon hand brush. As shown, the file clips onto the inside of the scrub-brush handle, permitting both to be autoclaved in any standard brush dispenser. The point of the file, protected while clipped inside the brush handle, is diamond-shaped for more thorough cleaning. While file is being used, clip acts as non-slip handle. Non-corrosive stainless steel prevents rusting. Edward Weck & Co., Brooklyn 1, N.Y.

711. Lab test slips

A series of 19 different laboratory report forms in snap-out, triplicate style, for use with patients' names plates, is available. The report slips have interleaved carbons, and the original has a strip of pressure-sensitive adhesive on the back for easy attachment to master report sheets. Samples on request. Physicians' Record Company, 3000 S. Ridgeland Ave., Berwyn, Ill.



712. Warning unit

New unit, especially designed for hospital operating rooms and other locations where hazardous grounding of isolating voltage systems may be encountered, is UL approved, will detect a leakage to ground of up to 60,000 ohms, and will allow no more than two milliamps to pass through the isolated voltage system to which it is installed. Green signal light located within view of the anesthetist indicates normal condition. When a ground occurs, red light goes on, and buzzer sounds. Buzzer may be turned off; red light remains on until fault is corrected. Zenith Electric Co., Dept. HT-11, 152 W. Walton St., Chicago 10, Ill.

For further information see postcard opposite page 150.

QUEBEC by Ernest Henenfeld, opposite page, is available in a handsome wide-margin print from Professional Services, Abbott Laboratories, North Chicago, Illinois

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Physicians in Quebec speak two languages, but in both they agree on Pentothal. ✣ They like its smooth induction with absence of delirium . . . the easy moment-to-moment control over depth of narcosis . . . the patient's rapid emergence from unconsciousness . . . the relative freedom from postoperative nausea. ✣ They know that Pentothal is the one intravenous anesthetic proved by a quarter century of practical clinical experience. ✣ We invite you, too, to join the physicians of 75 lands who prefer Pentothal and specify it regularly.

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Ureaphil provides the doctor a classically simple way to eliminate excess water. It disperses rapidly in the body fluids, and quickly finds its way to the renal tubules. Here it promptly cuts reabsorption of water by raising osmotic pressure.

This mechanism is normal and physiologic. It often produces diuresis even where potent mercurials become ineffective.

Ironically, though urea's diuretic efficacy has been known in oral form for a century, almost nobody used it. It tasted terrible, was hard to get down and keep down.

This problem is eliminated in intravenous Ureaphil, and the product is proving invaluable for difficult cases.

Ureaphil is indicated in cerebral edema before or during surgery, and sometimes where surgical intervention is not needed; and to counteract oliguria following burns, surgery, and trauma. It is useful after prostatectomy, when an abundant flow of urine may eliminate need for bladder irrigation. It is helpful, too, in edema due to heart failure, especially where mercurials cease to produce the desired effect

Would you like more complete information? Write Professional Services, Abbott Laboratories, North Chicago, Ill.

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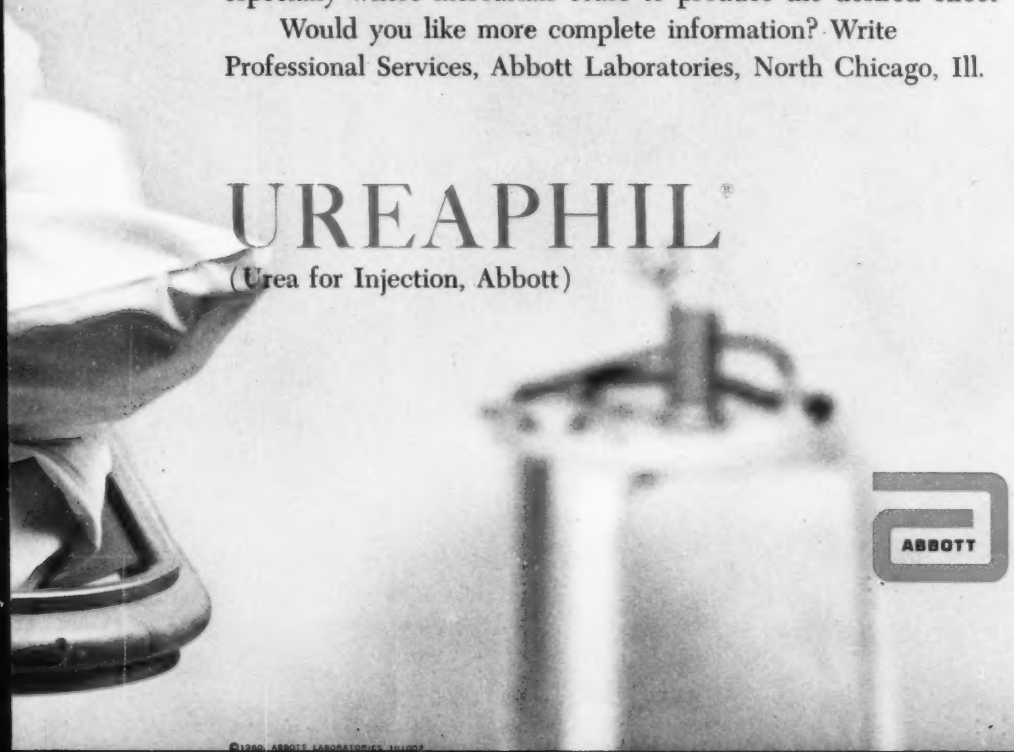

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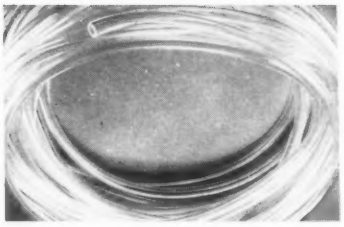
713. Suction machine

Stainless-steel surgical unit has two complete, separate suctions in same cabinet, operating independently, offering both surgeon and anesthetist any degree of suction required without interference. Two one-gallon collections jars with overflow traps prevent fecal matter from entering machine; gauges calibrated in inches and mm. of mercury vacuum; large storage drawer. Fully Underwriters' approved for hazardous locations. Pratt Hospital Equipment Mfg. Co., 3007 Southwest Drive, Los Angeles 43, Calif.

714. Swab Aids

New Betadine Swab Aids, disposable antiseptic applicators for minor wounds, cuts, abrasions, burns, are hygienically wrapped in individual cellophane tear-off envelopes—100 to a strip—packed in a dispenser box designed for easy wall mounting. Each Swab Aid contains Povidone-Iodine NND, the most effective germicidal iodine complex that does not sting, stain, sensitize or irritate. Ideal for emergency rooms. Tailby-Nason Co., 350 Fifth Ave., New York 1, N.Y.



715. Vinyl tubing

Vinyl-Tube, budget-priced new tubing of clear vinyl, is designed to handle a wide range of chemicals. Soft and flexible, even at −0° F, tubing is easy to use; grips tightly on glass or metal—in many instances eliminating need for clamps—and slips quickly over tubulatures. Highly polished bore minimizes accumulation of minute particles which might contaminate solutions. Relatively low surface tension permits more complete drainage. Ideal for piping that is to be cleaned "in place". shows line condition at a glance; easy to store. Seven sizes, all 1/16" wall, 50 feet to a package. Fisher Scientific Co., 444 Fisher Bldg., Pittsburgh 19, Pa.

716. Syringe attachments

Attachments fit standard syringes to fill them automatically time after time to whatever volume is set. Patented construction permits setting to be changed at will, and attachments to be put on or taken off instantly wtihout changing the setting. Originally introduced in 2 cc. size, the attachments are now available in 2-, 5- and 10 cc. sizes. The ¼ cc. tuberculin syringe fits into the 2 cc. size by use of an adapter. Similarly, the 1 cc. tuberculin and the 50 and 100 microlite syringes fit into the 10 cc. size. Adjusting screw permits setting, the syringe becoming an automatic pipette. Scientific Instruments, Inc., 15 Park St., Springfield 3, Mass.

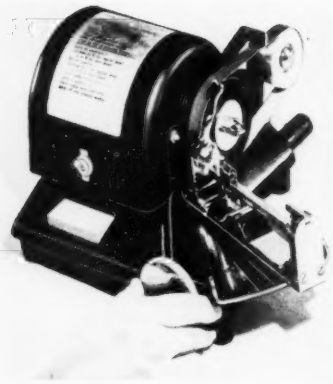
717. Heart recorder

Improved tape recorder specifically designed for recording and listening to heart and other physiological sounds is available. In addition to recording, may be used as an amplifying stethoscope and as a playback device for listening by an individual or, with additional audiophones, by groups up to 10 persons. In addition to teaching, unit is useful as an aid in keeping clinical records, in clinical diagnosis, and in research. Highly sensitive body-contact microphone picks up faintest murmurs. Sanborn Co., 175 Wyman St., Waltham 54, Mass.

718. Circumstraint

Latest model of Circumstraint, infant restraining device, has four instantly adjustable straps that button over baby's limbs. Accommodates infants of all sizes; immobilization is complete in seconds. For use during circumcisions, x-ray, transfusions and other procedures. Does away with pins, creeping towels. Infant is fully visible. Smooth, non-porous surface easily disinfected. Raised platform between legs holds instruments. Olympic Surgical Co., 1319 Second Ave., Seattle 1, Wash.

For further information see postcard opposite page 150.



719. Needle sharpener

New, improved hypodermic needle sharpener will resharpen any needle as good as new and can be set for four basic angles by a very simple adjustment. The portable AC plug-in unit also has application for sharpening scissors. Abrasive belt is inexpensive and easily replaced. Fully guaranteed. Best Products Company, 2620 W. Addison St., Chicago, Ill.

720. Absorbable hemostat

Surgicel Absorbable Hemostat, unique new material, for control of obstinate hemorrhage is available. Chemically, it is oxidized regenerated cellulose, manufactured by a new process that provides chemical and biological uniformity, assuring surgeons a predictable hemostatic response. Does not depend on the normal clotting mechanism or require addition of thrombin to effect hemostasis, permitting it to be used successfully on all patients, including hemophiliacs. Completely absorbed by the body tissues following application. No untoward reactions. Although Surgicel produces hemostasis in two to three minutes, the manufacturer emphasizes that its use does not reduce the need for meticulous adherence to accepted surgical technics. Johnson & Johnson, Hospital Division, New Brunswick, N.J.

721. Color coating

New product which protects and improves appearance of asphalt pavements and floors, for indoor and outdoor use, is available in grass green, concrete gray and brick red. Vynatex 23 remedies shabbiness, drabness and incompatibility with general hospital decor. For entrances, walks, parking lanes, restricted zones, media strips, platforms and other areas. A comprehensive color reaction chart, offered by manufacturer, shows how different colors create feelings of tranquility, warmth, coolness, cheerfulness, etc. Light reflection and absorption charts also included. Maintenance, Inc., Wooster, O.

722. Magniflex

New concept in lighting, the Magniflex is especially designed for work in various fields, including medical laboratories. Optically-ground, double-convex magnifying lens, five inches in diameter, provides distortion-free magnification. Lens has focal length of 13 inches, and a power of three diopters. A 22-watt circline fluorescent tube supplies cool, shadow-free illumination that minimizes eyestrain and fatigue, and assures visual accuracy. Lamp has G.E. ballast, is U.L. approved. Four models. Acme Lite Products Co., Inc., Congers, N.Y.

723. Illuminated clipboard

New illuminated clipboard, providing ample light for note-taking, writing or reading instruments in any inadequately lighted room is ideal for residents, nurses, research lab workers and students. Uses ordinary flashlight type bulbs and easily replaceable standard size D batteries. Of long-lasting Masonite, 9"x14½", the clipboard is coated with a scratch-resistant, light grey plastic finish. Steel lamp housing is finished in matching grey Hammertone. Clay-Adams, Inc., 141 East 25th St., New York 10, N.Y.

724. Electronic monitor

Automatic electronic Monitor, presently available in two models, provides continuous, accurate readings of the patient's vital functions. Both the Pulse-Blood Pressure-Temperature and the Pulse-Temperature units have the same digital pulse pickup consisting of a photo-cell and a light source. Each pulsation is immediately indicated by a blinking light and, when desired, an audible tone of variable intensity. The pulse rate is integrated for direct, continuous reading on a meter. Temperature pickups on both consist of a small thermistor bead sealed in a polyethylene tube. Temperature may be taken by auxiliary, oral, esophageal or rectal methods may be monitored at any time. At four-minute intervals, systolic blood pressure is automatically monitored. Air-Shields, Inc., Hatboro, Pa.

725. Anesthalung

An improved mechanism for use in surgery has been developed to aid the anesthesiologist in controlling rate and volume of a patient's breathing. The Anesthalung unit, about the size of an "E" type oxygen cylinder, weighs 13 pounds and can be attached to any standard anesthetic machine or mounted in an anesthetic cylinder yoke, saving space in the OR. Because of the low resistance in the gas system, little inspiration or expiration pressure is required by the patient, thereby assuring complete gas exchange in the lungs. In cases where controlled breathing is necessary, the unit gives automatic controlled respiration under the anesthesiologist's guidance, freeing his hands for other work. National Cylinder Gas Division, Chemetron Corp., 840 N. Michigan Ave., Chicago, Ill.

new... ..mouth-fitting nipple helps prevent excessive air swallowing

—won't collapse, won't bite shut

Clinically proved with both normal and hard-to-feed babies, lasts twice as long as ordinary nipples. Available in complete "Sure-Grip" nurser. Contoured CURITY bottle provides exceptionally firm grip. Square shape stores better.

Ordinary, bell-shaped nipple lets air in at corners. Often collapses and pinches shut. Ordinary nipple requires "push-pull" action to start feeding and insertion is often too deep for newborn. Rubber is frequently too tough to permit easy sucking action.

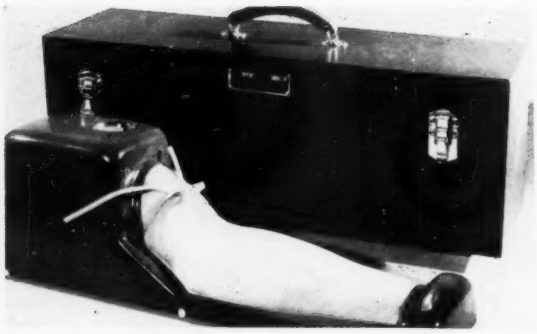
Oval-shaped Rib Nipple helps seal out air. Hollow ribs assure flow, won't bite shut. The Rib Nipple allows gentle "twist action" to start feeding for newborn. Premies take more formula. Less burping, less colic. Rubber is soft, yet withstands repeated washing.

Special help for common problems. Sluggish eaters get a full feeding with less effort through the Rib Nipple. With the prompting of "twist action", premies take and hold more. And cleft palate feeding is seldom a problem.

Improves normal feeding action. With the Rib Nipple, the baby doesn't eat too fast. Less spitting up. Supplementary feedings for the breast-fed are easier. The soft, functional shape allows smoother feeding with new as well as older babies.

Curity® Rib Nipple

THE KENDALL COMPANY • BAUER & BLACK DIVISION



726. Parental technic trainers

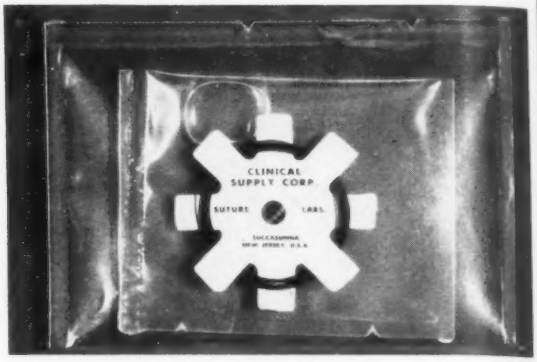
Two new training devices, molded of special plastics, permit the development of intravenous and intramuscular injection skills. The veni-puncture trainer, shown, is a simulation of the forearm, elbow and part of the upper arm, containing a pair of rubber veins under a plastic skin, with actual "blood" circulation obtained by a pressurizing bulb. Proficiency in locating veins, inserting syringes to withdraw blood samples, and administering plasma is readily obtained with this anatomically correct unit. Intramuscular injection trainer is a simulation of the human buttocks that may be strapped over a nursing technics doll or worn by demonstrator. Alderson Research Laboratories, 48-14 33rd St., Long Island City 1, N. Y.

727. Pediatric restraint

New pediatric hand restraint that does not necessitate immobilization, called the Pediatric L-Bow Restraint, protects the infant from possible self-injury by exploring hands after therapeutic procedure or during treatment. Made of smooth, non-toxic plastic, the device fits on each arm to render elbow action impossible. The infant is unable to touch his head or torso, but is free to move otherwise. Easy to apply and remove, restraints also help prevent the crankiness and frustration caused by ordinary methods of immobilization. Sterilon Corp., 500 Northland Ave., Buffalo 11, N.Y.

728. Skid-proof trays

Present food service trays may be skidproofed to save breakage of dishes and glassware with Grip-Tite — narrow strips of special pressure sensitive material which bonds to plastic, aluminum or steel trays without special tools. Will prevent skidding even if tray is wet. Odorless, sanitary. Silite, Inc., 2600 N. Pulaski Rd., Chicago 39, Ill.

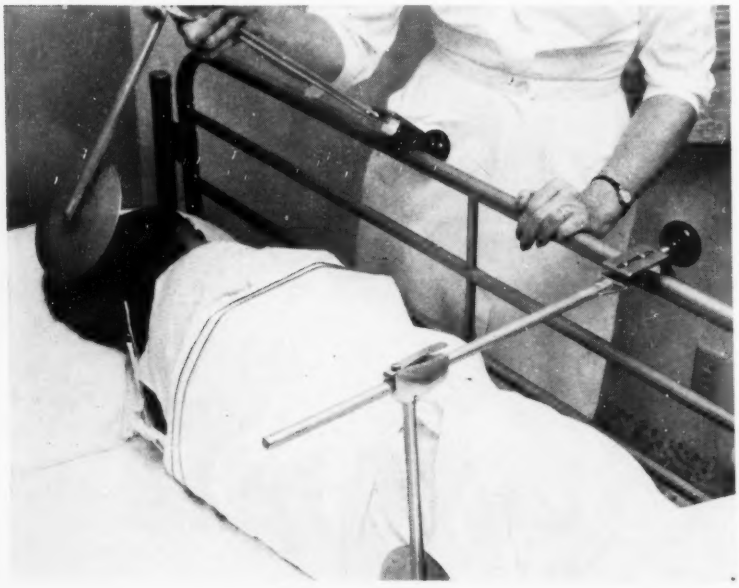


729. Surgical sutures

Complete line of sutures on exclusive dispensing reels, in double plastic sterile packets with easy-tear notches. The reel eliminates completely the tangled and kinked suture strand. Packed in plastic boxes. No bactericide solution required. Inner packet can be resterilized at hospital. Clinical Supply Corp., Surgical Suture Labs., Succasunna, N. J.

730. Stitch scissor

The new Blackwood Stitch Scissor, said to be the first improvement in stitch scissors in 40 years, is available. Bringing a new concept to stitch removal in all body areas, the scissor eliminates the need for two instruments —a scissor to cut and a forceps to remove the stitch. Because of its unique patented feature, the new scissor not only cuts, but holds the suture so that it may be pulled from the tissue in one operation. United Surgical Supplies Co., Inc., Port Chester, N.Y.

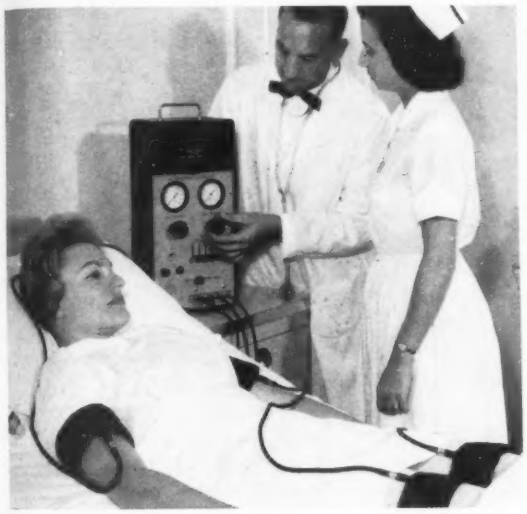


731. "Extra hands"

A new mechanical device, invented by a private duty nurse, enables a lone nurse to hold an immobile or even comatose bed patient comfortably on his side during bed adjustments or treatments. The device, called the Sierra Stroup Patient Support, is described as "the equivalent of an extra pair of hands for a busy nurse." It consists of a broad, smooth disc affixed to an adjustable arm. The arm clamps to the bed rail and projects over the patient so that the disc presses gently but firmly against his body. The support was invented by the nurse to help her care for a severely injured 250-pound man who needed frequent turnings and maintenance in a side position. One or more of the "hands" may be used as needs indicate. Sierra Engineering Co., R. A. Hawks Division, 123 E. Montecito Ave., Sierra Madre, Calif.

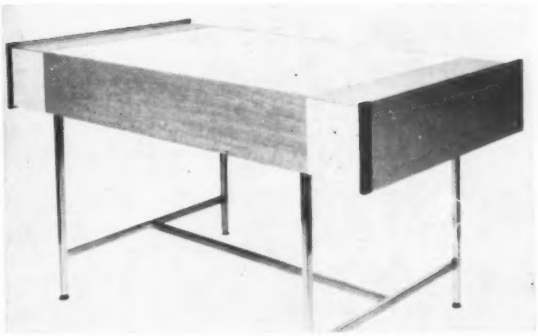
732. Disposable half-sheet

The new half-sheet size is an economy feature for use on examination tables, as well as a patient drape and as a cot and pillow covering, where larger areas are to be covered, two are recommended. The 40″x48″ sheet is made of three plies facial tissue soft cellulose and is individually folded for easy storage and accessibility to the user. Its linen-like softness makes it pleasant to the touch, and it is completely free of rattle. Samples available on request. Busse Hospital Products, 64 East 8th St., New York 3, N.Y.



733. Alternating tourniquet

New automatic device destricts alternately, in a uniform fashion, venous returns from the limbs, thereby alleviating acute pulmonary congestion. The constancy of reduced venous flow during alternations greatly minimizes possible cardiac strain, and reduces considerably the time and effort required of nurses in attending severe cardiac patients. Cordis Corp., 241 N.E. 36th St., Miami 37, Fla.



735. Linen inspection station

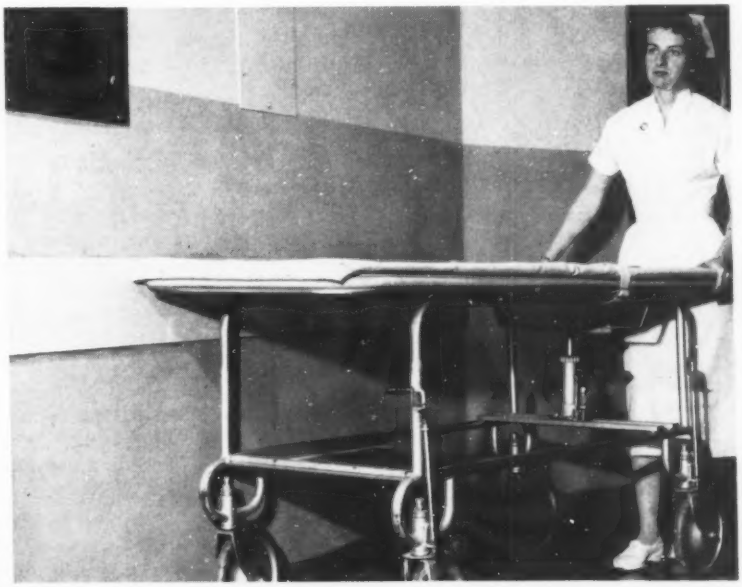
New table affords a uniformly illuminated, shadowless work surface on which gowns, drapes, pack-wrappers and other such surgical linen can be inspected for pinholes, tears, and the like. Over-all dimensions are 72″ long, 36″ wide, 37″ high. Work surface flanges and edges are white Formica; apron is also white Formica with front surface attractively interrupted with natural birch panel; ends are protected natural birch panels. Vertical uprights of chrome-plated square-tubing frame are equipped with adjustable feet. Equipped with recessed switch, rapid-start ballast, and detachable cord; 110V, 60 cycle, A.C. The Macbick Company, 243 Broadway, Cambridge 39, Mass.

736. Padded draw-sheet

New type of padded draw-sheet, the Soft Ease pad, can be used on hospital beds instead of the conventional rubber sheets. According to the manufacturer, the pads help prevent bed sores, provide a cooler, more comfortable rest, and are a great labor saver for nurses and attendants. The new pad—a foam plastic encased in an envelope of two layers of 3-mil Visqueen film—is stainless and odorless. It is 30″ wide and 70″ over-all in length. The foam plastic padding, 30″x38″, is centered in the product with a lap of about 16 inches of double-thick polyethylene film at each end to allow for tucking under the mattress. Visking Company, 6733 West 65th St., Chicago 38, Ill.

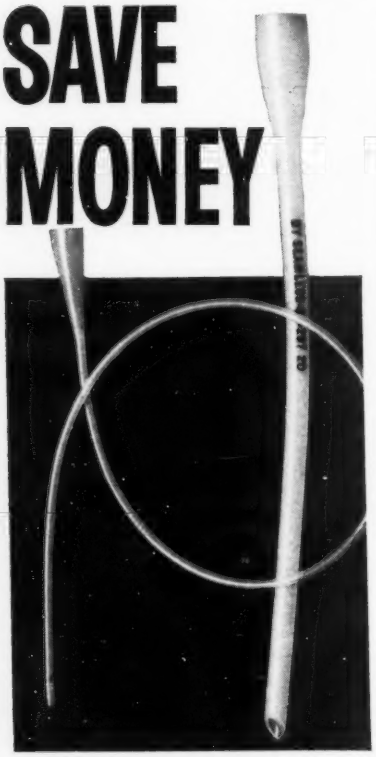
734. Formica guards

The traffic of operating room Guerney carts, patients' beds and food carts in hospital corridors have long been the cause of a familiar problem—the constant bumping and marring of corridor walls. Frequently, the plaster cracked and chipped and had to be replaced, involving repainting a section of the area, or an entire wall. Each repair job required several weeks, and constituted a continuing maintenance expense. The new, laminated Guerney guards eliminate the problem. A strip of Formica, one foot wide, is applied directly to corridor walls, 31 inches from the floor line—at the height of the damage-causing beds and carts. In addition to withstanding the punishment of corridor traffic, the strips require minimum care to be kept antiseptically clean. Formica Corp., a subsidiary of American Cyanamid Co., Cincinnati, O.



For further information see postcard opposite page 150.

SAVE TIME
SAVE MONEY



DISPOSABLE
PLASTIC
CATHETERS
by SEAMLESS

Disposable plastic catheters by Seamless are ready for immediate use—factory sterilized and pyrogen free. Individually packaged for longer shelf-life in heat-sealed plastic containers, they will not crack or deteriorate. Catheters by Seamless are economically priced to be disposable for one-time use at minimum cost, or they may be sterilized and re-used for greater savings.

Seamless offers a complete line of plastic tubing as well as catheters in all sizes. Ask your surgical supplies dealer for information on any of the following: *Catheters*—Tieman, Nelaton, Robinson, DeLee Infant Tracheal, Oropharyngeal, Whistle-Tip, Endotracheal anesthesia; *Tubes*—Oxygen, Suction, Levin, Premature Infant Feeding, Urinary Drainage.

HOSPITAL DIVISION
THE SEAMLESS RUBBER COMPANY
NEW HAVEN 3, CONN.

Films, New Literature

740. Distilled water

Designed to meet the specific needs of expanding hospitals, new system described in Bulletin No. 162 provides for large quantities of distilled water to be always available, especially during peak-use requirements. System combines four purification methods, including steam condensation, followed by ion-exchange, organic removal, and distillation. Electrical resistance is 800,000-2,000,000 ohms. Barnstead Still and Sterilizer Co., 252 Lanesville Terrace, Boston 31, Mass.

741. History of medicine

The film *69.3*, a capsule history of medicine, shown at the recent White House Conference on Aging, is available without charge. The thirteen-and-a-half-minute film shows how medical progress, developing through the ages, has helped raise the average life expectancy from about 20 years in ancient times to the present 69.3 years. Produced under a grant from Pharmco, Inc., and White Laboratories, Inc., prints can be obtained from Institute of Visual Communications, Inc., 40 East 49th St., New York 17, N.Y.

742. Self-help devices

New two-color catalog lists approximately 20 items for daily use in the rehabilitation of minor or severely handicapped persons. W. R. Hausmann Woodwork, Inc., Medical Division, 1545-47 Inwood Ave., New York 52, N.Y.

743. O.R. Equipment

New two-color, 20-page catalog of operating room equipment provides facts and specific construction features for each unit; gives detailed what-to-look-for advice on the general subject of equipment construction. Among Blickman-made units described in detail are instrument stands, hampers, buckets, stools, irrigator stands, drum stands, instrument tables, sponge and glove racks, and many others. S. Blickman, Inc., 536 Gregory Ave., Weehawken, N.J.

744. Instruments

New 470-page catalogue illustrates over 4,200 surigcal instruments. Included are new instrument developments for neurosurgery, E.E.N.T. and other fields of specialized and general surgery. The Miltex line of surgical needles, Erka blood pressure appartus, and Heine diagnostic instruments are also illustrated. E. Miltenberg, Inc., 43 Great Jones St., New York 12, N. Y.

745. Respiratory meter

Bulletin 502 provides full details on company's portable respiratory and test meter, a compact instrument used to measure exhalations in respiratory testing service. Will operate with a pressure differential of only a few tenths of an inch of water. Its rated capacity is 45 liters per minute of air at ½" w.c. differential. Included are additional data on design and application. American Meter Co., 920 Payne Ave., Erie, Pa.

746. Centrifugal pump

New 12-page selection catalogue for users of centrifugal pumps is available. Included are charts showing the recommended temperature and pressure ranges for 10 classifications of pumps, from minus 350° F. to plus 1,000° F., and up to 1,000 psig. Illustrations, descriptions and specifications are shown for each. Dean Brothers Pumps, Inc., 323 W. 10th St., Indianapolis 7, Ind.

(*Continued from page 9*)

condition, caused by excessive smoking, causes temporary blindness which may last for a few minutes to an hour and a half or more, according to Halsted S. Hedges, M.D., professor emeritus of ophthalmology, University of Virginia.

The vision blackout, which has nothing to do with the direct effects of cigarette smoke on the eyes, can be incurred in one of two ways, states Dr. Hedges. In some patients it is the result of a spasm in one or more of the cerebral blood vessels, induced by tobacco smoking; in others it results from a marked deficiency in riboflavin and vitamin B12 in the blood, which causes a slow degeneration of certain cells in the retina.

The vision damage caused by excessive smoking can usually be corrected in a short time merely by the discontinuance of tobacco use. Dr. Hedges cites the case of a 37-year-old man with perfect distance vision, but who was unable to read a line of type. A chain smoker, he was advised to give up tobacco. He did, and in a month he could read anything without any glasses.

Take a Handful of Dirt . . .

Dirt—the ordinary garden variety—is an important component in laboratory studies on arthritis conducted by the National Foundation.

Albert B. Dorfman, M.D., director of Chicago's LaRabida Institute, and his associates, are particularly interested in unravelling the chemical structure of certain complex molecules – mucopolysaccharides—that seem to be involved in the arthritis disease processes.

It has been discovered that ordinary dirt contains bacteria which in turn contains an enzyme which in turn starts chemical reactions in connective tissue sugars in a way that can't be duplicated by any other process known to chemists.

The scientists literally take a handful of dirt, treat it to extract the bacteria, place the bacteria in a sonic oscillator and shatter them with sound. In this way the enzyme can be obtained.

New Hope for Hayfever Victims

A single injection under the skin is the technic in a newly developed treatment for persons allergic to goldenrod pollen and other allergens.

Mary H. Loveless, M.D., associate professor of clinical medicine, Cornell University, states that the method is being tested throughout the United States.

Based on her own tests, Dr. Loveless adds that the single shot is as safe as the conventional series of weekly injections.

The allergen is prepared in an emulsion of petrolatum and injected under the skin where it is released gradually, allowing the patient to build up antibodies, yet not causing the full onset of hayfever.

No Pellagra Here, Senor

Pellagra, a deficiency disease, has been found only rarely in countries where the tortilla constitutes a basic part of the diet.

Three researchers at the University of Wisconsin, think they have found why. The corn used in tortillas is treated with lime.

A. E. Harper, B. D. Prinekar, and Prof. C. A. Elvehjem found that rats fed alkali-treated corn grow better than rats fed untreated corn. Alkali used in the treatment of the corn evidently makes the essential vitamin, niacin, available for absorption.

Romantic Notions Short-Circuited by Pump

If what Willem J. Kolff, M.D., of the Cleveland Clinic Foundation predicts is correct, romantic song writers of the future will be hard put to create the image of the bleeding, ecstatic, or broken heart.

According to Dr. Kolff, total replacement of the human heart with a mechanical organ should be possible within three years.

A small, motor-driven pump will replace the heart. Two wires will come out of the chest and into a portable battery. The battery will last long enough to safely see the wearer from one electrical outlet to another, or to the cigaret lighter in his car.

LUBRICATE GLOVES WITHOUT FAIL

EZON T. M.

(MICROPULVERIZED MODIFIED STARCH LUBRICANT U.S.P.)

BULK PACK

Once surgical gloves are dried after washing, they should be thoroughly powdered to prevent them from sticking together during sterilization. EZON provides economical lubrication for the gloves whether this step is carried out by hand, or mechanically, in a glove powdering machine. EZON does not gelatinize when autoclaved, and most important EZON is biologically absorbable . . . won't provoke adhesions. Order SR 810 Bulk Pack Can—5 lbs. per can—6 cans to a shipping case.

EZON BULK FOR POWDERING

EZON PACKETS FOR O.R. USE

EZON WASH-PAK FOR WASHING

EZON and WASH-PAK are trademarks of the Seamless Rubber Company

HOSPITAL DIVISION
THE SEAMLESS RUBBER COMPANY
NEW HAVEN 3, CONN.

For further information see postcard opposite page 150.

FINEST FOR GENERAL SURGERY

BROWN MILLED SURGEONS' GLOVES by SEAMLESS

Brown Milled Surgeons' Gloves by Seamless are made of the finest Para rubber. They are gloves that cling to the hand and fingers . . . yet never grab with a tight grip. There's no loss of circulation, accelerated fatigue or loss of sensation. These are gloves acclaimed the world over for providing maximum sensitivity and maximum comfort compatible with long glove life. And hardly less important —their hypoallergenic properties minimize the possibility of contact dermatitis.

To give your surgeons the best, order SR-829. "Kolor-Sized" and Banded.

HOSPITAL DIVISION
THE SEAMLESS RUBBER COMPANY
NEW HAVEN 3, CONN.

PHARMACY

(*Continued from page* 105)

sis and polio (Pitman-Moore), and vaccines for adeno virus and influenza virus (both Parke, Davis and Pitman-Moore).

Anticonvulsants: Elipten (aminoglutethimide—Ciba), an analog of the hypnotic Doriden, and Zarontin (ethosuximide—Parke, Davis). It is hoped that it may permit increase in the degree of seizure control in epilepsy.

Appetite suppressants: Didrex (benzphetamine — Parke, Davis). Also introduced were several other combination products and preparations with a prolonged period of action.

Tranquilizers: Librium (methaminodiazepoxide—Roche), Dornwal (amphenidone—Maltbie), and Striatran (emylcamate—Merck Sharp & Dohme), which differ chemically from the phenothiazine preparations which have been so widely used. Librium and Dornwal are said to have a calming effect without some of the after-effects of drowsiness and reduced mental alertness produced by earlier tranquilizers. Striatran, in addition to being a calmative, is said to exert a distinct muscle relaxant effect. Timovan (phenothiazine derivative—Ayerst) may find application especially in the disturbed adolescent and geriatric patient.

Hormones: the anabolic hormones Dianabol (methandrostenolone—Ciba) and Adroyd (oxymetholone—Parke, Davis) and the hypoglycemic agent Glucagon (Lilly). The anabolic hormones increase nitrogen retention in the form of proteins to improve muscle and bone mass and to increase weight. Main clinical indications for Glucagon are severe hypoglycemic reactions during insulin therapy of the labile diabetic or during insulin shock.

A new steroid hormone, Diloderm (dichlorisone—Schering), for dermatological therapy, is said to have a marked anti-inflammatory effect without producing a systemic action. Among other new products for dermatological therapy were the fungicides Pellar ointment (Crookes-Barnes) and By-Na-Mid (butylphenamide—Cutter).

In the 10-year period 1951 through 1960, a total of 3,568 new products were marketed, including 432 new single chemicals, 760 duplicate single products, and 2,376 compounded products. There were also 1,064 new dosage forms.

In the years 1958, 1959, and 1960, the 20 largest firms — 12.2 percent of the 156 pharmaceutical manufacturers nationally marketing new products — supplied 58.5 percent of all new chemical entities and 32.2 percent of all new products. The total product line of these 20 firms received 64.4 percent of all new prescriptions, according to the Associated Prescription Panel Service.

Atomic "Cocktails" Show Possible Leukemia Link

The atomic "cocktail"—radioactive iodine in water—often used in the treatment of overactive thyroid, can mean possible future dangers for the patient.

When the treatment was developed, some physicians speculated that persons drinking the radioactive iodine might run a higher risk of developing cancer of the thyroid later.

The concern stemmed from the fact that thyroid cancer occurs more frequently in children whose necks have been exposed to radiation treatments, and that thyroid cancers can be produced by radiation in animals.

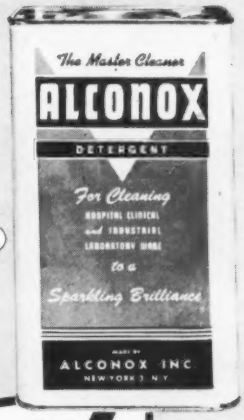
Now a new concern has arisen. Some researchers see a possible connection between radioactive iodine treatments and leukemia.

So far, ten patients who had such treatments have cropped up with acute leukemia, usually 18 to 24 months after the treatments.

Two recent cases have been reported by Thomas W. Burns, M.D., University of Missouri. In one case, blood cancer was diagnosed just six months after the patient was treated wtih "hot" iodine. In the other case, the leukemia was detected seven years later.

Dr. Burns admits nobody has actually proved any connection between the treatments and the cancers, but adds "there is enough evidence now available to make the possibility of such an association a matter of concern."

THE WORLD'S FINEST DETERGENT



Proven the world's finest and most economical detergent for the exacting requirements of Hospital, Medical and Laboratory use.

MEETS HIGHEST U.S. GOVERNMENT SPECIFICATIONS

MORE WETTING POWER!

MORE SEQUESTERING POWER!

MORE EMULSIFYING EFFECT!

QUICKLY, COMPLETELY SOLUBLE AND RINSABLE!

More effective than any known detergent in powder form or any liquid detergent that costs four times as much!

ALCONOX
The Master Cleaner

Sold throughout the world!

ALCONOX announces with Pride its new Companion Line of

H&L HOSPITAL BRAND LABORATORY PRODUCTS

SUPERIOR SPRAY PRODUCTS for DOCTORS and HOSPITALS

COMPARE THESE PRICES for proof that nowhere in America can you duplicate such matchless low costs for products of such unquestionable quality in economy-size 12-oz. cans!

H & L Spray SKIN PROTECTOR
with Dow Corning Silicones

Formulated with the skin-soothing properties and protection of silicones and the bacteriostatic action of hexachlorophene to aid in the prevention of contact dermatitis, intertrego and miliaria among bed-ridden, incontinent patients and to prevent the subsequent formation of decubitus ulcers. Its use will minimize cross infection.

12-oz. Can, $1.65 ea. **In case of 12 Cans, $1.45 ea. Per Case, $17.40**

H & L Spray FREEZE *with du Pont Freon®*

For quick, temporary, topical anasthesia of the skin by freezing for minor surgery.

12 oz. Can, $2.18 ea. **In Case of 12 Cans, $1.86 ea. Per Case, $22.32**

H & L Spray ADHESIVE TAPE REMOVER

Removes adhesive tape painlessly, also any tape markings remaining.

12 oz. Can, $1.35 ea. **In case of 12 Cans, $1.15 ea. Per Case, $13.80**

H & L Spray BANDAGE *with Neomycin*

Provides a new method for the quick and easy application of a sterile, transparent, flexible film, which adheres to the surface of the skin, providing an obstacle to bacteria.

12 oz. Can, $2.30 ea. **In Case of 12 Cans, $2.00 ea. Per Case, $24.00**

H & L Spray U.S.P. TINCTURE of BENZOIN
In Aerosol

Improves adhesive properties of tape and minimizes patient's discomfort during long tape and cast applications. For the prevention of bed sores, we suggest H & L Skin Protector.

12 oz. Can, $2.00 ea. **In Case of 12 Cans, $1.70 ea. Per Case, $20.40**

H & L Spray ROOM DEODORANT

The outstanding sick-room deodorant. Kills odors chemically. Contains no masking agent.

12 oz. Can, $1.35 ea. **In Case of 12 Cans, $1.15 ea. Per Case, $13.80**

ASSORTED CASE 2 Cans of each of the above 6 Items **$18.80**

PRICES SLIGHTLY HIGHER WEST OF THE ROCKIES

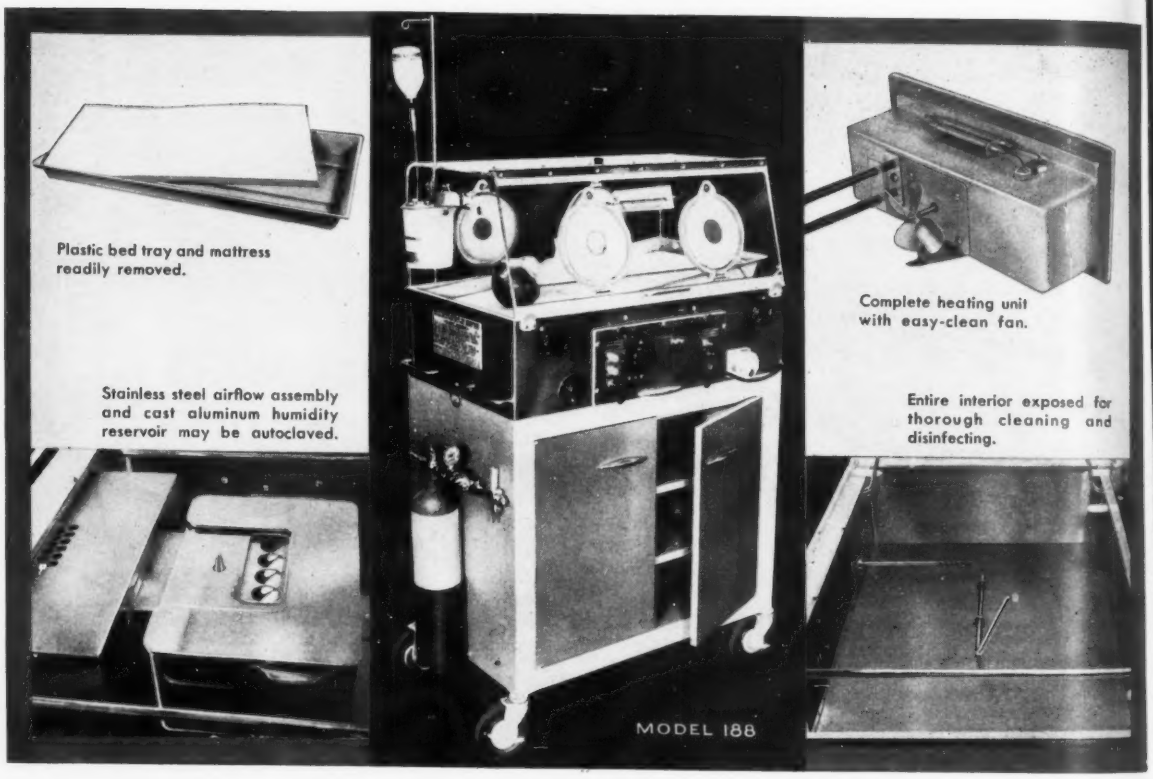
ORDER TODAY FROM YOUR SUPPLIER

Ask him about "his own" Special H&L FREE OFFER

ALCONOX and H&L PRODUCTS are sold by all leading Hospital, Laboratory and Surgical Dealers

THE ARMSTRONG UNIVERSAL BABY INCUBATOR

can be kept spotlessly clean with minimum effort


Plastic bed tray and mattress readily removed.
Stainless steel airflow assembly and cast aluminum humidity reservoir may be autoclaved.
Complete heating unit with easy-clean fan.
Entire interior exposed for thorough cleaning and disinfecting.
MODEL 188

All interior parts of the Armstrong UNIVERSAL Baby Incubator can be removed easily without the use of any tools.

The entire stainless steel interior is then completely exposed for thorough cleaning and disinfecting. When removed, the humidity reservoir, the air flow assembly and the filter casting are readily autoclaved to eliminate any odors and to prevent any contamination.

The large tilting bed is heavy-duty plastic with extra smooth finish, also easily cleaned.

The big, four-compartment cabinet with shelves and doors is enameled in durable, easy-clean silver lustre finish inside and out.

While easy cleaning is one of the important engineered features of the Armstrong UNIVERSAL Baby Incubator, the newly designed operating advantages in securing the ultimate in isolation is the fundamental reason why you will select this finest of baby incubators for your modern nursery. Write or wire for complete details.

THE GORDON ARMSTRONG CO., INC. 1501 EUCLID AVENUE CLEVELAND 15, OHIO

Available in Canada from Ingram & Bell, Ltd., Toronto — Montreal — Winnipeg — Calgary — Vancouver

Personally Speaking

Taking over as 1960-61 president, California Hospital Association, is J. E. Smits (l.), regional hospital administrator, Kaiser Foundation Hospitals, Los Angeles. Alfred E. Maffly (r), administrator, Herrick Memorial Hospital, Berkeley, was named president-elect. Congratulating both men at the recent CHA meeting is Orville N. Booth, outgoing president, administrator, St. Francis Memorial Hospital, San Francisco.

Sister M. Helen Agnes – is new general office supervisor, St. James Hospital, Chicago Heights, Ill. She formerly held a similar post at St. Francis Hospital, Evanston, Ill.

Lottie Biederman—has been named "Employee of the Year" by St. Bernard's Hospital, Chicago, where she has served for 32 years. She is a housekeeper in the school of nursing.

Edna J. Brandt, R.N., and **Margaret B. Dolan, R.N.**—have been appointed to serve three-year terms on the 12-member expert advisory committee for the Professional Nurse Traineeship Program of the Public Health Service. Miss Brandt is chief, Bureau of Public Health Nursing, California State Department of Health; Mrs. Dolan is chairman, Department of Public Health Nursing, University of North Carolina.

Lawrence Brett—former supervisor of Bethesda Hospital, Cincinnati, has been named administrator of the North Miami General Hospital, now under construction.

DeWitt Brown—former controller of Baptist Memorial Hospital, Jacksonville, Fla., is new assistant administrator, Baptist Memorial Hospital in Kansas City, Mo.

Irene G. Buckley—has been appointed executive director of the National Cancer Foundation, Inc. Miss Buckley is president of the Social Work Vocational Bureau.

Jeanette Carey—a senior in Chicago Wesley Memorial Hospital School of Nursing, has been chosen "Miss Methodist Student Nurse" for 1961.

James J. Catania, R.N.—has been appointed director of nurses, Chester (Pa.) Hospital; he was formerly supervisor, Institute of the Pennsylvania Hospital, Philadelphia.

Thomas Dunworth – has been named director of medical development at Western Reserve University and director of development at University Hospitals, Cleveland, Ohio. Mr. Dunworth formerly was campaign director of the Columbia-Presbyterian Medical Center, New York City.

John A. Hagan—has been appointed a rehabilitation consultant for the American Heart Association. He formerly was state supervisor, Pennsylvania Bureau of Rehabilitation.

(Continued on next page)

Newly elected officers of the Florida Hospital Association are (l.-r.): J. A. McDonald, George E. Weems Memorial Hospital, Apalachicola, secretary-treasurer; Joseph F. McAloon, Memorial Hospital, Hollywood, president; I. James Anderson, Jr., Indian River Memorial Hospital, Vero Beach, president-elect.

Duane T. Houtz – has been appointed assistant director, University of Florida's Teaching Hospital and Clinics.

Raymond S. Jackson, M.D. – administrator, University Hospital, New York University Medical Center, has been designated university physician and director of university health services. He will succeed **Douglass S. Thompson M.D.,** who resigned to accept a similar post at the Univ. of Pittsburgh.

Theodore J. Jacobsen – has been named executive director, Lutheran General Hospital, Park Ridge, Ill. and Lutheran Deaconess Hospital, Chicago. He has been administrator, Morton F. Plant Hospital, Clearwater, Fla. and was president of the Florida Hospital Association. New administrator of the Morton F. Plant Hospital is **Roger S. White,** former assistant administrator.

Robcliff V. Jones – has been appointed director, department of physical medicine, Grace-New Haven Community Hospital, New Haven, Conn., to succeed **Thomas F. Hines, M.D.** now at Gaylord Hospital, Wallinford, Conn.

Robert H. Larson—has been appointed assistant administrator, Morristown (N.J.) Memorial Hospital.

Robert W. Lekowski—has been appointed director of personnel, Flushing Hospital and Dispensary, Jamaica, N.Y.

Alfred H. Marshall—for 16 years director of public relations, Grace-New Haven Community Hospital, New Haven, Conn., has retired.

George Mathews—is new administrative assistant, Baptist Memorial Hospital, Jacksonville, Fla.

Anna M. Matter, R.N.—has been appointed regional nursing consultant for the Public Health Service staff in the Kansas City, Mo., office of the U.S. Department of Health, Education, and Welfare. She succeeds **Marjorie Spaulding.**

William F. McLaughlin—was appointed deputy director (administration) of the Department of Hospitals and Jackson Memorial Hospital, Miami, Fla.

Andrew H. Mettee – has been named administrator and business manager, Nevada State Hospital, Reno. Mr. Mettee formerly was administrator, White Pine General Hospital, Ely, Nev.

Eric Oldberg, M.D.—head of the department of neurology and neurological surgery, University of Illinois, has been appointed president of the Chicago Board of Health.

Benjamin H. Orndoff, M.D.—professor and chairman, department of radiology, Stritch School of Medicine, Loyola University, Chicago, has been presented Loyola's first Stritch Award Medal for outstanding services to medicine and medical education.

William L. Parry, M.D.—has been appointed associate professor of urological surgery, University of Rochester School of Medicine and Dentistry. The university also announced the promotion of **Paul E. Morrow** from assistant professor to associate professor of radiation biology and pharmacology, and of **Irving L. Spar,** assistant professor, to associate professor of radiation biology.

Jerome T. Paul, M.D.—who has been chairman of the department of medicine at St. Francis Hospital, Evanston, Ill., was elected president of the staff, succeeding **Gerald J. Fitzgerald, M.D.**, Skokie, Ill.

Paul S. Phelps, M.D. – deputy health state commissioner for Connecticut, and director of the state's TB control and chronic illness program, has retired.

Peter Pierdinock—is new administrator, Danbury (Conn.) Hospital. He was formerly assistant administrator, Bridgeport (Conn.) Hospital and will be succeeding **Robert P. Lawton.**

William L. Potts, M.D. – has been

(*Continued on page* 135)

"Let's not be accused of playing havoc with the equipment budget later on. Let's overextend ourselves on these improvements here and now!"

PERSONALLY SPEAKING

(*Continued from page* 132)

named director of medical and surgical services, Dayton (Ohio) State Hospital. He will be in charge of the hospital's 100-bed medical and surgical building, as yet uncompleted.

Dr. Potts was formerly assistant professor of medicine and preventive medicine, Ohio State University.

G. Curtis Pritchard – is new administrator, Wills Eye Hospital, Philadelphia. The former administrator, **Melvin L. Sutley,** is retiring.

Milton S. Saslaw, M.D. – has been appointed executive director, National Children's Cardiac Hospital, Miami, Fla. He was formerly director of medical research at the hospital.

Richard H. Saunders – has been appointed associate dean of the Cornell University Medical College, and assistant professor of medicine. He has taught clinical pathology and medicine at the medical college of Yale University, the University of Rochester and the University of Vermont. He most recently served as study director of the Association of American Medical College committee studying the present role of the internship training program.

Jack O. Segall – has been appointed assistant director, Jewish Memorial Hospital, Roxbury, Mass. He obtained his master's degree in hospital administration at Northwestern University, and completed his resident work at Peter Bent Brigham.

Ernest A. Shepard – administrator of the Florida Alcoholic Rehabilitation Program, has been appointed to a new International Commission to study alcoholism in the U.S. and Canada.

David W. Stickney—administrative assistant, Children's Memorial Hospital, Chicago, has been named assistant director, Illinois Hospital Association.

Theodore J. Wachowski, M.D. – has been elected chairman of the board of chancellors of the American College of Radiology. Dr. Wachowski, clinical professor of radiology, University of Illinois, is also director of the department of radiology, Copley Memorial Hospital, Aurora Ill., and president of the Radiological Society of North America.

Harold Wetzel—has been appointed hospital consultant to the Florida Development Commission, succeeding **Guy Cromwell,** who has been appointed administrator of the Martin Memorial Hospital, Stuart, Fla.

VA News

The VA's first William S. Middleton medical research award has been presented to **Solomon A. Berson, M.D.,** and **Rosalyn S. Yalow, Ph.D.,** of the Bronx (N.Y.) VA hospital. Dr. Berson is the hospital's chief of radioisotope service and Dr. Yalow is association chief.

Allen W. Byrnes, M.D.—director of professional services, St. Cloud (Minn.) VA hospital, has been named manager Knoxville (Iowa) VA hospital. He succeeds **Albert L. Olsen, M.D.,** who has transferred as manager to the Sheridan (Wyo.) VA hospital.

James H. Matthrews, M.D.—assistant chief of pulmonary disease service, Oteen (N.C.) VA hospital, has been appointed chief of the VA's clinical research in pulmonary diseases. He succeeds **James W. Raleigh, M.D.,** who left the VA to become medical director of the American Thoracic Society.

Bishop **Fred G. Holloway**—head of The Methodist Church's West Virginia Area, was elected president, Board of Hospitals and Homes, for 1960-64, succeeding Bishop **William T. Watkins** (retired) of Louisville, Ky. **Dr. Olin E. Oeschger** was re-elected general secretary.

Melvin L. Sutley—succeeds **Ray E. Brown** as president, American College of Hospital Administrators. Mr. Sutley, former administrator, Wills Eye Hospital, Philadelphia, was elected at the College's 26th general membership assembly, in San Francisco. **Tol Terrel,** administrator, Shannon West Texas Memorial Hospital, San Angelo, Tex., was named president-elect, while **Robert S. Hudgens,** director, School of Hospital Administration, Medical School of Virginia, Richmond, was appointed first vice-president and **Clarence E. Wonnacott,** administrator, Dr. Wm. H. Groves Latter-day Saints Hospital, Salt Lake City, Utah, second vice-president.

New officers

First president of the newly organized Connecticut Association of Directors of Volunteer Services in Hospitals is **Mrs. Guy E. Griffin,** Greenwich Hospital. Other officers are: vice-president, **Edith Campbell,** Waterbury Hospital; secre-

(*Continued on next page*)

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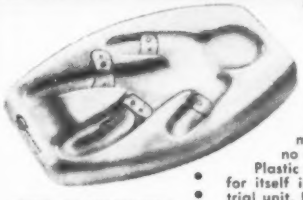
CIRCUMSTRAINT



Fast, safe way to restrain infants during circumcisions, x-rays, etc. Saves nurses time. Baby is completely immobilized by 4 instantly adjustable straps. No escapes; no creeping towels. Platform between legs holds clamps. Plastic surface easily disinfected, reducing staph danger. Pays for itself in laundry saving alone! Send today for postage-paid trial unit. Use it 2 weeks free. At end of 2 weeks either return it without cost or obligation, or keep it and pay $42.50.

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tary, **Mrs. Stephen C. Shanley,** Hospital of St. Raphael; and treasurer, **Mrs. Jean Shubert,** Mt. Sinai Hospital, Hartford.

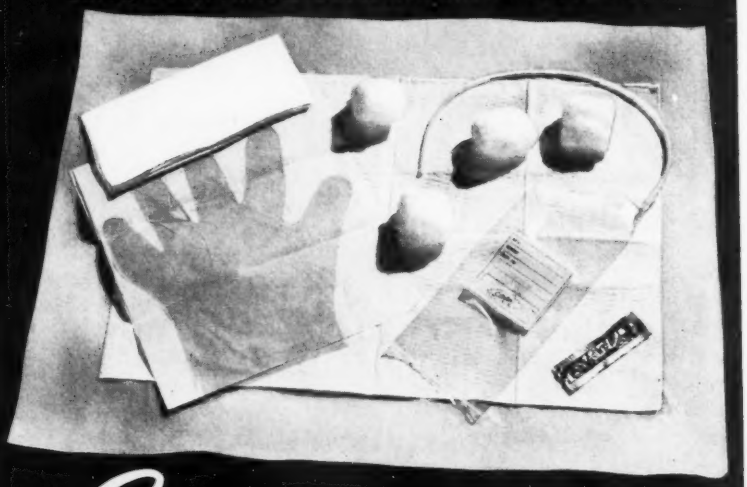
Margaret McLaughlin, assistant director of dietetics at Hartford (Conn.) Hospital, has been elected president of the Connecticut Dietetic Association. Other officers are: president-elect, **Natalie Giglio,** Grace-New Haven Community Hospital, and secretary, **Rosemary Neagle,** Norwalk Hospital.

June Beauvais, R.N.—is new executive secretary, Florida Nurses Association.

New officers of the Washington State Hospital Association are **William E. Murray,** administrator, Olympic Memorial Hospital, Port Angeles, president; **Robert F. Brown, M.D.,** director, The Doctors Hospital, Seattle, president-elect; **Mrs. Lenore Eckhardt,** administrator, Adams County Memorial Hospital, Ritzville, first vice president; **Sister Francis Xavier,** administrator, St. Anthony's Hospital, Wenatchee, second vice president; **Rodney Gannon,** administrator, Samaritan Hospital, Moses Lake, third vice president; and **Alice W. Sandstrom,** business manager, Children's Orthopedic Hospital, treasurer.

The Kansas Hospital Association elected the following officers at its recent annual meeting: **Walter V. Coburn,** administrator, Bethany Hospital, Kansas City, president; **Russell H. Miller,** associate director, University of Kansas Medical Center, Kansas City, president-elect; **Sister M. Susanna,** administrator, Halstead Hospital, Halstead, vice president; and **Arthur E. Landon,** administrator, Asbury Hospital, Salina, treasurer.

For Greater Convenience and Individual Patient Safety in Uretheral Catheterization Procedures



Sterilon CATH-PAK

No. CP-500

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Sterile, ready to use and easily disposable, Sterilon's CATH-PAK is a compact, easily stored package containing all the items required for one uretheral catheterization.

- Waterproof cellulose pad which also serves as a waste wrapper after procedure.
- Pair of Sensi-Touch gloves, pre-powdered.
- Robinson 14 French smooth plastic catheter with 500 cc. collection bag attached, identification sticker and clamp. Clamped bag becomes sealed specimen container. Also available with Tiemann Coude tip — Stock No. CP-501.
- Perineal drape.
- Four cotton balls.
- Application of lubricating jelly.
- Outer wrap becomes sterile field on which to prepare component parts.

Also ask your Supply Dealer about the Sterilon Disposable Scalpel, or write

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STERILON LABORATORIES Fayette, Alabama

STERILON OF CANADA, LTD. Niagara Falls, Ont.

Deaths

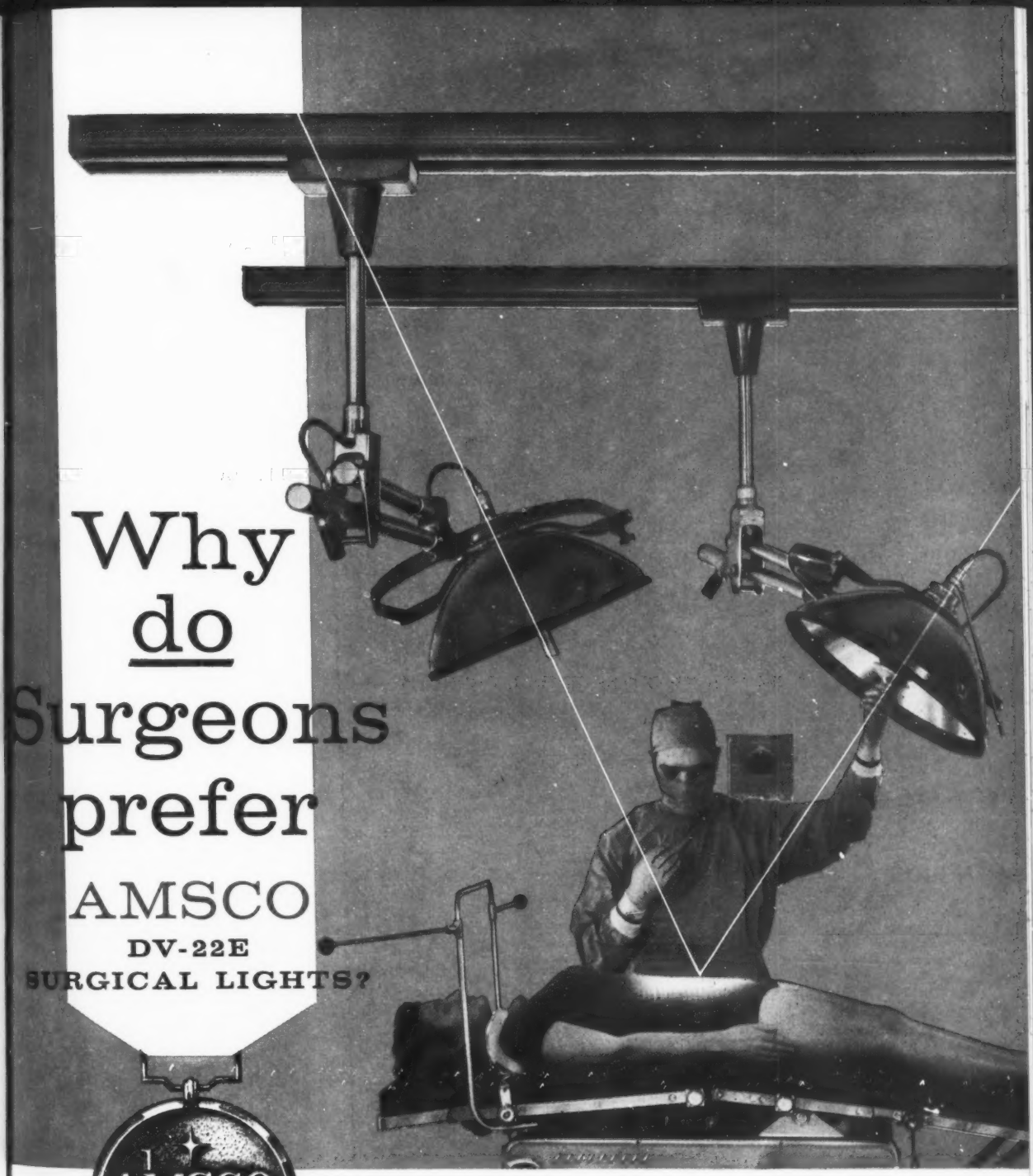
Joesph W. Jailer, M.D.—46, died Aug. 23. Dr. Jailer, who had earned international recognition in the field of endocrinology, was director, endocrine diagnostic laboratory, Columbia - Presbyterian Medical Center, New York City; consultant to the Veterans Administration and the National Science Foundation, and chairman, study section on cancer chemotherapy, United States Public Health Service. He was the author of many scientific papers in the endocrinology field.

Training Course For Food Service Supervisors

The sixth annual training course for hospital food service supervisors is now being offered by Michigan State University, East Lansing.

Because of the lack of qualified dieticians in many hospitals, the role of the food service supervisor is growing in importance; and hospitals are looking to universities for help in training these potential supervisors.

The course runs from January 23 to March 24, with a follow-up week October 2-6.



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For your copy of "LIGHTING FOR THE HOSPITAL," *write for LC-122.*

TRADE TOPICS . . .

Baer Retires from Aloe, Succeeded by Willman

Mr. Baer

Howard F. Baer—has announced his retirement as president and chief executive officer of A. S. Aloe Company, a division of Brunswick Corp. He will be succeeded by **John N. Willman.**

Mr. Willman

Mr. Baer joined Aloe in 1927, and was appointed president in 1929. The company became a division of Brunswick in June 1959. Mr. Baer will remain with Aloe as chairman of the division.

Mr. Willman was vice-president in charge of the Aloe branch operations. He previously was with the American Hospital Supply Corp. as a vice-president of the parent corporation and president of its international operation.

Sterling Forms New Subsidiary

Formation of Breon Laboratories, Inc., as a new pharmaceutical subsidiary of **Sterling Drug Inc.,** has been announced. The new subsidiary will take over the marketing of the individual product lines of four Sterling pharmaceutical units, largest of which is George A. Breon & Co.

Breon Laboratories comprises four divisions: Breon Rx division, American Ferment division, Diaparene division; and distribution of Esta Medical Laboratories products.

Charles L. Czermak is president of Breon Laboratories, a position he held with George A. Breon & Co. **Charles C. Wood,** vice-president, sales, of American Ferment, will hold the same position with the new subsidiary. **Ross V. Sayers** is vice-president and medical director. These are positions he formerly held with George A. Breon & Co.

New Appointments From American Sterilizer

Mr. Fish

Henry E. Fish—formerly general sales manager for American Sterilizer, has been named vice-president, marketing, following the resignation of **Robert L. Boyd.** Mr. Fish was one of the recipients of an Alfred P. Sloan Foundation fellowship to the graduate school of industrial management at Massachusetts Institute of Technology last year, and has served in numerous marketing and management positions with American Sterilizer's domestic and international divisions.

Mr. Sweitzer

George J. Sweitzer will fill Mr. Fish's former post of general sales manager. He has been with Amsco since 1948, most recently as eastern regional manager.

New Amsco branch office appointments include: **Harold H. Kiebes,** eastern regional manager; **Robert R. Cline,** New York branch manager; **Peter J. Crowley,** Los Angeles branch manager; **Archie G. McKee,** Boston branch man-

(Continued on page 140)

Representatives for the Pioneer Rubber Company gathered from all over the U. S. for the surgical glove division sales seminar held recently in Chicago. Pictured are (l. to r.) seated: True E. Read, John R. Jones, Bill Casselman, Marjorie Beamer, J. H. Gibson. Standing: Phil Kindel, James Aylor, George Sargent, A. J. Marshall, Peter Monroe, R. W. Kropp, Robert Mattis, Ed Thornburg, Robert Besserer, and Donald Edwards.

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SURGICAL APPLIANCES and INSTRUMENTS

VITALLIUM appliances are clinically inert and non-electrolytic, thus offering optimum tissue compatibility. With over 9 million VITALLIUM surgical implants in use, not a single case of corrosion has been reported in the literature. For your assurance of superior quality, specify VITALLIUM whenever hip prostheses, internal fixation devices, or other appliances are required. 25 years of dependable performance and patient satisfaction will reflect the wisdom of your choice.

For further information about VITALLIUM, consult your Austenal catalog or write to AUSTENAL COMPANY.

VITALLIUM ... pioneer and leader in corrosion-resistant surgical alloys

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ager; and **Joseph G. Shea,** Boston technical projects engineer.

Mead, Johnson Reorganizes, Names New Appointees

Mead Johnson & Co. recently announced the creation of three autonomous operating divisions in a broad corporate reorganization.

The three are: *Mead Johnson Laboratories,* which will carry on the firm's business of creating and marketing nutritional and pharmaceutical products; *Edward Dalton Company,* which will create and market special purpose nutritional products; and *Mead Johnson International,* which will develop, direct, and expand the international operations of the corporation.

As part of the major reorganization, two new executive vice-presidencies have been created. **Lambert D. Johnson, Jr.,** former vice-president and general manager of Mead Johnson International, and **W. D. Snively, Jr., M.D.,** formerly vice-president and medical director, will fill the new positions at the highest management level of the company.

President of the new Edward Dalton Company is **Robert E. Sessions,** who is, in addition, executive vice-president and a director of the parent company. Other appointments to the Edward Dalton Company include **Edward C. McKeon, M.D.,** medical director; **William A. Fraser,** director of food trade relations; **Robert Smith,** new product development specialist; **John A. Witting,** executive assistant to the president; **Francis M. Beudert,** director of sales; and **Eugene J. Milano,** director of Metrecal market planning. Top vice-presidential posts will be filled by **C. Joseph Genster,** who was named vice-president, marketing; and **Orville P. Nuffer,** vice-president, Pablum-BiB and new products.

President of Mead Johnson Laboratories is **John T. McLoughlin,** former vice-president and general manager of Mead Johnson's nutritional and pharmaceutical division.

President of Mead Johnson International is **Albert R. Wayne,** who has been vice-president, operations, of the international division.

The position of vice-president, medical director, Mead Johnson & Co., will be filled by **Louis F. Rittelmeyer, Jr., M.D. William B. Hotalen, M.D.,** is associate medical director, nutritional and pharmaceutical division.

In addition, the name of the Mead Johnson research division has been changed to the Mead Johnson Research Center.

News Notes

Edward H. Mueller — executive vice-president and treasurer of V. Mueller & Company, has retired after 39 years with the firm.

* * *

Homer H. Stryker, M.D. — has been awarded a public citation for "outstanding service to his country, as a physician, soldier, and inven-

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- *reduces itching*
- *prolongs cast life*
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tor" by the Tennessee state department of the American Legion. Dr. Stryker's orthopedic inventions are manufactured and distributed by the **Orthopedic Frame Company,** which is managed by his son, Lee Stryker.

* * *

Two instruments manufactured and marketed by the Scientific and Proofs Instruments Division of **Beckman Instruments, Inc.** — the DB ultraviolet spectrophotometer and the model 320 industrial gas chromatograph programmer — were selected for appearance in *Industrial Design's* seventh annual design review.

* * *

Will Ross, Inc. — has opened an Ohio office and warehouse in Cincinnati. The operation is directed by **J. B. Phillips,** branch manager.

* * *

Clinical Supply Corp. — has purchased the suture manufacturing equipment owned by **Ohio Chemical & Surgical Equipment Co.,** and has relocated it in their laboratories. They have retained in their catalog all Ohio product numbers.

* * *

Robert W. Johnson, Jr. — has been named president of Johnson & Johnson. He will succeed **George F. Smith.** Mr. Johnson has been executive vice-president and general manager of the firm and will continue in the position of an executive committee member of the board of directors.

* * *

The name of **Smith-Dorsey Pharmaceutical Company** has officially been changed to **Dorsey Laboratories.**

* * *

Popper & Sons, Inc., New York City — announce the purchase of controlling interest in **Everett Products, Inc.,** Providence, R. I., hypodermic and dental needle manufacturers. **Walter L. Popper** was elected president of Everett Products, **Forbes MacGregor** will continue as vice-president and director, and **Robert A. Popper** is secretary-treasurer. **Hy Lampinski** is plant manager.

* * *

The Gilbert Hyde Chick Company of California announces the transfer of its general sales office to the company's home address, 821-75 Ave., Oakland 21. **Leon E. Rogers,** the newly appointed sales manager, will head the new sales office.

* * *

Richard O. Beyland — has been appointed division manager for Armour Pharmaceutical Company, with headquarters at Dayton, O.

* * *

The Hard Manufacturing Company has announced the following new appointments: **Edward C. Oberreither** as midwest sales representative, **Al A. Pinnelli** as southwestern sales representative, **Paul Heidenreich** as west coast representative, and **Thomas E. Roberts**

(*Continued on page* 143)

CETACAINE
SPRAY TOPICAL ANESTHETIC

CONTROLS PAIN
SUPPRESSES GAG REFLEX
MAINTAINS PATIENT COMFORT

CETACAINE Spray Topical Anesthetic — in a specially designed hospital unit—with finger-tip availability—provides rapid, profound, long-lasting anesthesia . . . affording more time for thorough examinations. It is safe, antibacterial . . . low in cost.

INDICATIONS FOR USE

Endoscopy, laryngoscopy, eustachian tube intubation, removal of nasal polyps, cauterization of the septum, pre and post-operative tonsillectomies, suturing of open wounds, treatment of burns, pruritus, and hemorrhoids.

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ANESTHETIC
"Fulfills more of the qualities of an ideal topical anesthetic than any we have yet tried."

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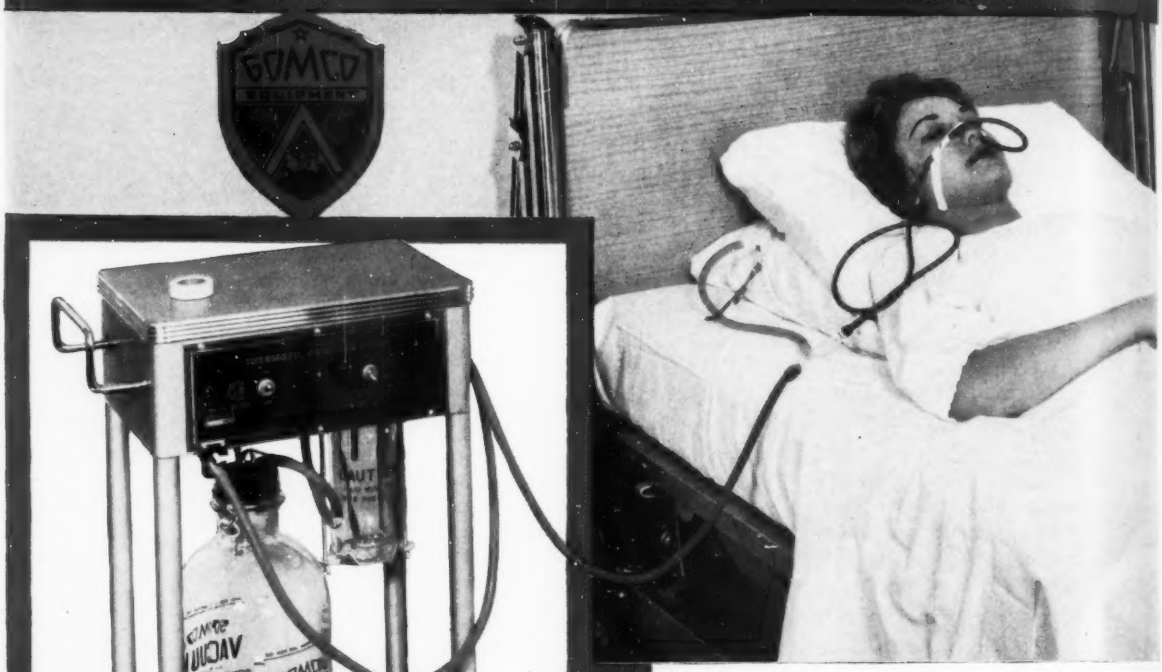
Oppenheim, Kaplan, Gandhi, Pearlman
—Cook County Hospital—
EYE, EAR, NOSE and THROAT MONTHLY
(Nov. 1960)

Its Unfailing Dependability Inspires the Utmost Confidence



Gomco No. 765-A Thermotic® Drainage Pump

Contributing to patient confidence is an important function of physician, nurses and staff. Fine equipment plays its part, too—such as the Gomco No. 765-A Thermotic® Drainage Pump performing gastric lavage.

This economical Gomco stand-mounted unit is entirely automatic. Easily set up, it operates with quiet, gentle, intermittent action to deliver unvarying suction for all mild drainage. It is ideal for duodenal or fistula drainage, drainage following prostatectomy, abdominal decompression, gastric lavage, blood procurement. The non-mechanical, positive-action pump can be operated continuously without attention or lessening of drainage effectiveness. Suction system permits settings at 90 mm. or 120 mm. of mercury.

The Gomco Aerovent® valve provides automatic overflow protection. Pump damage from flooding is prevented; operation is restored in seconds by emptying the suction bottle.

Investigate the many exclusive advantages of this and other Gomco equipment. A phone call to your Gomco dealer will arrange a demonstration at your convenience.

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(*Continued from page* 141)

as mountain states representative.

* * *

Ralph G. Sickels—advertising-public relations executive for Parke, Davis & Company, has retired, after 40 years' service. Truly a company "spokesman," Mr. Sickels has been responsible for millions of words, thousands of pictures, and hundreds of advertisements since he joined the firm in 1920.

* * *

An unrestricted grant of $5000 to the University of Pennsylvania represents a total of half a million dollars awarded by Wyeth Laboratories for independent medical research and is the 100th such grant made to medical schools and hospitals during the past five years.

* * *

Milton E. Morgan — vice-president and general manager, Permaglas division, A. O. Smith Corp., has been appointed to the planning council of the American Management Association's manufacturing division.

* * *

Westinghouse lamp division has established a new organization to handle new and special products. Directed by **Gordon W. Howson** and headed by **George B. Saviers,** the group is immediately working on quartz heat lamps and ultraviolet lamps.

* * *

Three regional salesmen have been added to the staff of American Cyanamid Company's surgical products division. They are **Thomas G. Bowen, Richard P. Cullen,** and **Wilbur M. Gause.**

* * *

American Hospital Supply Corp. — announces that negotiations are nearing completion for an exchange of American stock for all shares of **Midwest Dental Manufacturing Co.** of Chicago. Midwest is a major manufacturer of high-speed dental drilling equipment and supplies. Management and marketing policies of the dental firm will continue unchanged.

* * *

Basil S. Burrell — has been appointed manager of product development for American Hospital Supply Corp. In his new position, Mr. Burrell will be concerned with identifying and measuring markets for health products. He has been director of new product research for American's hospital supply division.

* * *

Beatrice Finkelstein — has been given the McLester award for her work in the field of nutrition and dietetics. The award, established by the J. B. Roerig Co. division of Charles Pfizer & Co., was presented at a dinner of the Association of Military Surgeons. Miss Finkelstein is employed by the Aerospace Medical Division, Wright-Patterson Air Force Base, Ohio.

* * *

An idea submitted by **C. A. Rivers,** manager of subscriber service, Blue Cross of Florida, Inc., made him a prize winner in a nationwide contest sponsored by Allen Hollander Co. Mr. River's award-winning entry involves the use of bin-feed pressure-sensitive labels to "automate" the checking and record-keeping needed for Blue Cross members.

* * *

John N. Merrill — assistant treasurer at Cutter Laboratories, has been named controller of Olympic Plastics Co., Inc., a Cutter affiliate. **Chad Kelley,** formerly sales representative for Cutter's great lakes division, has been appointed division manager, south central division.

* * *

Admiral Sales Corp. — has moved into the hospital field with its commercial electronics division's television and communications systems for hospitals.

* * *

John M. Kurkjian, M.D.—resident physician in surgery and industrial medicine at Massachusetts Memorial Hospital, has been appointed manager of health services for Raytheon Company's industrial components division.

The Kendall Co., Bauer & Black division's open house at its new Seneca, S. C., plant was the occasion for this picture. L. to r. are C. A. Grove, comptroller, Chicago division of The Kendall Company; R. R. Higgins, president, The Kendall Co.; B. R. Maybank, Lt. governor of South Carolina and one of the speakers at the openhouse; E. H. Brown, general manager, Chicago division; G. C. Stineback, director of sales; J. W. Hibott, director of manufacturing; and W. Chase, Seneca plant manager. Over 5000 people attended the plant opening.

HOSPITAL Topics Book Corner

"H3" IN THE BATTLE AGAINST OLD AGE, *by Henry Marx. New York, Plenum Press, Inc., 1960. $4.95. 207 pp.*

The highly controversial "H3" therapy developed by Prof. Anna Aslan, director of the Institute of Geriatrics, Bucharest, is the subject of this book. Although the author's stated purpose is to "present the true picture," a dramatic emotionally charged account is the result.

The "H3" therapy, using procaine, began when Prof. Aslan first observed that patients who had received a series of procaine injections for painful arthritis conditions seemed to be revitalized in mind and body, and that symptoms of premature aging in younger patients disappeared. Procaine seemingly halted or modified many of the diseases of old age, including senile Parkinsonism, rheumatism, bronochial asthma, and arthritis.

Several "before and after" photographs are presented to show the value of the treatment; unfortunately they were taken under varying photographic conditions and much of the comparison value is lost.

NOTES OF A SOVIET DOCTOR, *by G. S. Pondoev. Translated from the Russian by Basil Haigh. New York, Consultants Bureau, Inc. 1959. $4.95. 238 pp.*

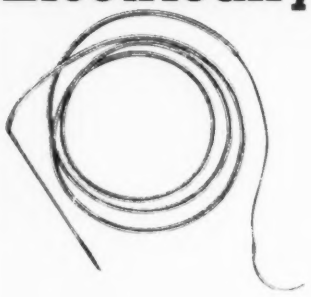
The author has been a physician for more than 50 years, so he has had considerable medical experience under both the czarist and soviet regimes. Although he is an avowed admirer of the Soviet system, an occasional nostalgic reference is made to former times when the choice of a doctor was quite free, and "there was established that intimate contact which is so desirable in the doctor's work."

In the introduction, Iago Galdston, M.D., F.A.P.A., suggests that *Notes* could more fittingly be titled "Three Souls in Search of Unity." Three distinct personalities are encountered; the urban, well read, broadly experienced doctor, with counterparts the world over; the doctorinaire hewing to a straight line orthodoxy; and the humanist who is committed to man's aspirations for the true, good, and beautiful.

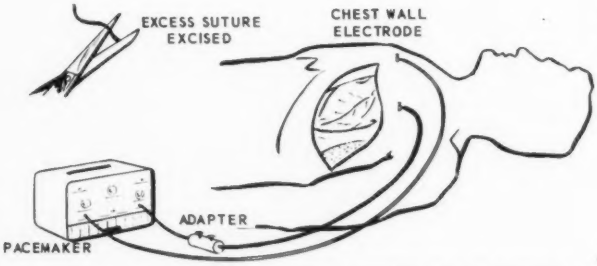
The book is in its second printing in Russia, where it has become a valuable part of the reading of the medical profession, particularly medical students.

In spite of its preoccupation with politics, the book is crammed with medical homelies and concrete advice.

Electrically Conductive Cardiac Suture



Supplied 36" long, sterile in plastic packets — one dozen per box.



Its application is to invoke effective ventricular contractions. Applied internally via a thoracotomy incision, directly to the myocardium, it is the most reliable type of artificial stimulus. There are no spasmodic contractions of skeletal muscle, as with external electrodes. It permits closure of chest incision and reduces necessity of re-opening chest wall. The suture may be left in the patient for long periods of time. The suture conductor is made of silver-plated wire braided over linen to make it extremely flexible, and insulated with poly-vinyl tubing. One ½-circle curved needle and one 3" Keith straight needle is swaged on each end. An adapter supplied by CLINICAL is necessary to attach suture to the Pacemaker.

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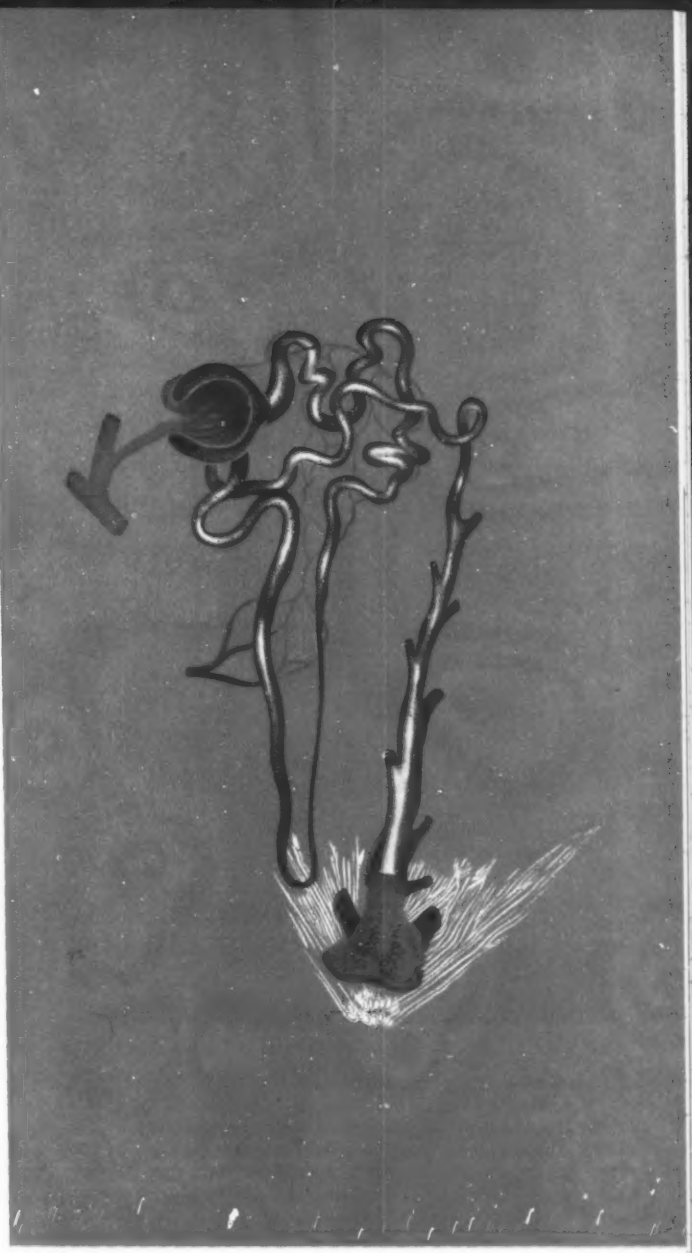

on the pathogenesis of pyelonephritis:

"An inflammatory reaction here [renal papillae] may produce sudden rapid impairment of renal function. One duct of Bellini probably drains more than 5000 nephrons. It is easy to see why a small abscess or edema in this area may occlude a portion of the papilla or the collecting ducts and may produce a functional impairment far in excess of that encountered in much larger lesions in the cortex."[1]

The "exquisite sensitivity"[2] of the medulla to infection (as compared with the cortex), highlights the importance of obstruction to the urine flow in the pathogenesis of pyelonephritis. "There is good cause to support the belief that many, perhaps most, cases of human pyelonephritis are the result of infection which reaches the kidney from the lower urinary tract."[3]

to eradicate the pathogens no matter the pathway

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References: 1. Schreiner, G. E.: A.M.A. Arch. Int. M. **102**:32, 1958. 2. Freedman, L. R., and Beeson, P. B.: Yale J. Biol. & Med. **30**:406, 1958. 3. Rocha, H., et al.: Yale J. Biol. & Med. **30**:341, 1958.

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Bits of Brain Snipped For Study

Scientists at Tulane University, New Orleans, are snipping out tiny bits of brain tissue in their study of mental diseases.

The new technic, according to Robert G. Heath, M.D., chairman of the department of psychiatry at Tulane, involves a new type of stereotaxic instrument evolved from one used in placing electrical stimulators in the brain for experimental study. The apparatus guides a small needle which can snip out pieces of tissue.

The bits of tissue are studied with an electron microscope for structural information on the cells, and for enzyme activity and other biochemical processes.

The technic may enable the research men to link cell activity with psychoses, since biopsy material can be gathered from specific parts of the brain.

"Pain Nuisance" Causes Headache

That splitting headache you occasionally experience is probably the result of the release of a "pain nuisance" from nerve ends in the scalp, at the same time that arteries in the head are dilated. The original cause of 95 percent of our headaches is not in the head at all, according to Adrian M. Ostfeld, University of Illinois College of Medicine.

Headaches are commonly caused by conditions elsewhere in the body, states Dr. Ostfeld. Concentrating on one task too long, skipping a meal, or running a fever can all be causes of headache. The most common type of all results from too long a concentration on one task. It is also the easiest to cure, and will usually disappear if the patient changes position, relaxes, and takes an aspirin.

Dr. Ostfeld adds that headaches are often a warning signal of both mental and physical problems. However, out of a possible 1,000 cases of recurring headaches, only about three are brain tumors.

Cells of Embryo Organize After "Scrambling"

Cells taken from developing kidneys or livers in chick embryos were able to reassemble to form miniature, but otherwise typical, organs. This phenomenon was observed in experiments by scientists at the Rockefeller Institute.

In the experiments, the reorganization was seen even after the cells had been separated from each other and scrambled to destroy their former alignment.

Prof. Paul Weiss and associate professor A. Cecil Taylor report that the circumstances of the experiment ruled out the possibility that the cell aggregations were acting on "instructions" from other parts of the embryo.

In the same fashion, scrambled skin tissue cells realigned themselves to form skin tissues in which tiny feathers could be observed.

A new concept in handle *design*—a new concept in handle *material*—WEXTRAN! Here at last is a retractor handle that automatically provides a firm, comfortable grip—gives controlled pull without unnecessary muscle tension. And less tension means less fatigue. Assistants can now maintain a steady retractor position over longer periods of time.

New WEXTRAN is a highly durable material that is almost indestructible—will not crack or lose its shape under repeated autoclavings or dry heat sterilization. Because this new handle design eliminates all interior surfaces, these retractors are far easier to clean than old-style retractors with open handles. Retractor blades are made of famous Weck Stainless Steel.

Besides the Richardson and Bennett Tibia Retractors shown above, Deaver, Harrington, Kelly and Foss Gall Bladder Retractors now have new Wextran handles.

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BETWEEN-OPERATION CLEANING: At Huggins Hospital, Wolfeboro, N.H., a MICROSTAT is used for the wet pick-up of a detergent germicide.

As research in hospital sepsis grows, evidence mounts that housekeeping methods and equipment play a critically important role in the control of cross-infections. The removal of dangerous bacteria-laden dust from all surfaces — floors, walls, ceilings, mouldings — is fast being recognized as essential to an adequate program of control.

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The Microstat traps essentially all bacteria and virus clumps to particle sizes of 0.3 micron.

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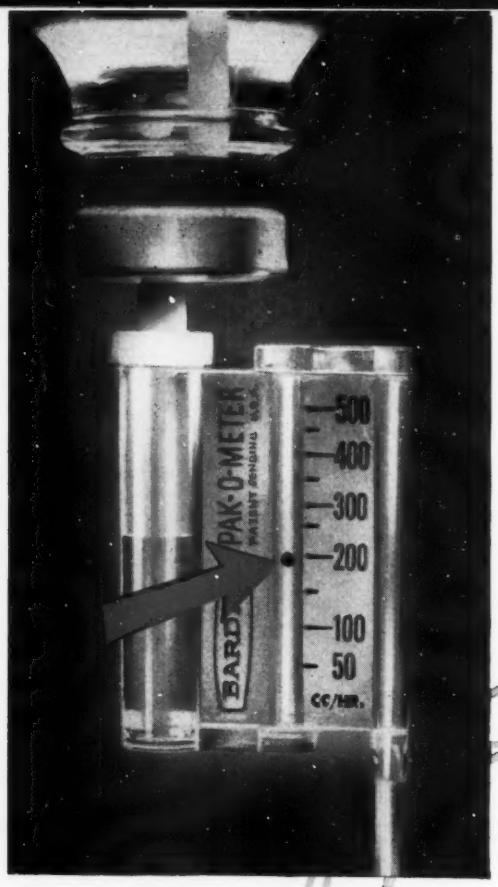
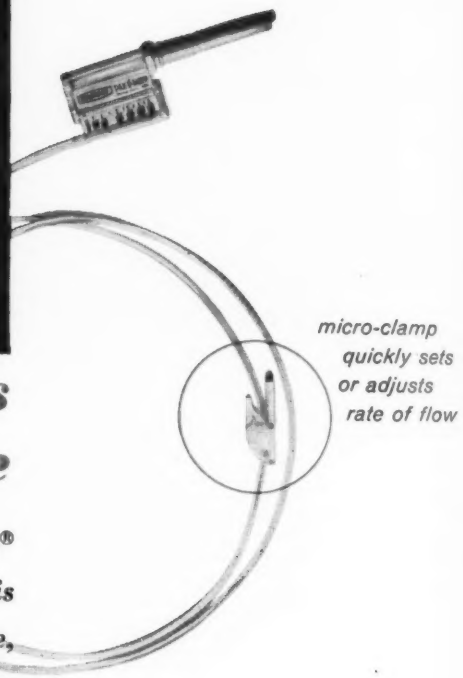
For further information see postcard opposite page 150.





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New Lead Poisoning Hits Metal Workers

Fumes from cutting torches felled seven scrap metal workers recently, according to Frederick E. Zimmer, M.D., Danville, Pa. The workers were engaged in cutting heavily painted bridge girders, and the resulting fumes contained a high concentration of lead.

Several of the men became ill within one week of starting the work, and all seven were poisoned within five weeks. All exhibited classic symptoms of lead poisoning –gagging, nausea, loss of appetite, weakness, and general fatigue. Only two required treatment, and both recovered rapidly.

Samples of the paint chipped from the girders showed a lead content of 21.6 percent. Samples of air taken from where the men were working contained up to 20 times the maximum allowable concentration of lead.

Dr. Zimmer warns that current extensive renovation and construction, and increasing reclamation of scrap steel will accentuate the importance of this new type of lead poisoning.

Wine Increases Vitamin Absorption

The absorption of vitamin A was increased 125 percent in 27 patients who had subtotal gastrectomies, by the ingestion of a dry white wine.

T. L. Althausen, Kahn Uyeyama, and Muriel Loran, M.D.s at the University of California Medical Center, reported that the wine more than doubled the patients' absorption of fats.

The patients' malabsorption difficulties were traced to the effects of increased cholinesterase activity of the pancreas.

Safe Mold Becomes Deadly Disease

The mold that causes athlete's foot has revealed its most deadly side. Microbiologist George H. Scherr of the University of Illinois College of Medicine reports that the disease may be regarded as different from any known disease.

Usually, the molds that cause athlete's foot will grow only on the skin. If one of these molds is injected into an animal's body, it will not cause disease. However, Dr. Scherr reports that three different molds, placed in small cellophane bags and surgically implanted in rabbits, exhibited strange properties.

The cellophane bags confined the molds, but allowed nutrients to enter. According to Dr. Scherr the molds began to change, and in about 20 days had assumed a completely different form and character.

When the new mold was injected into rabbits and mice, infection resulted that destroyed the animals' internal organs. When the disease was transferred from one animal to another, it became worse.

Dr. Scherr explains that there is no known way to combat the new disease.

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For further information see postcard opposite page 150.

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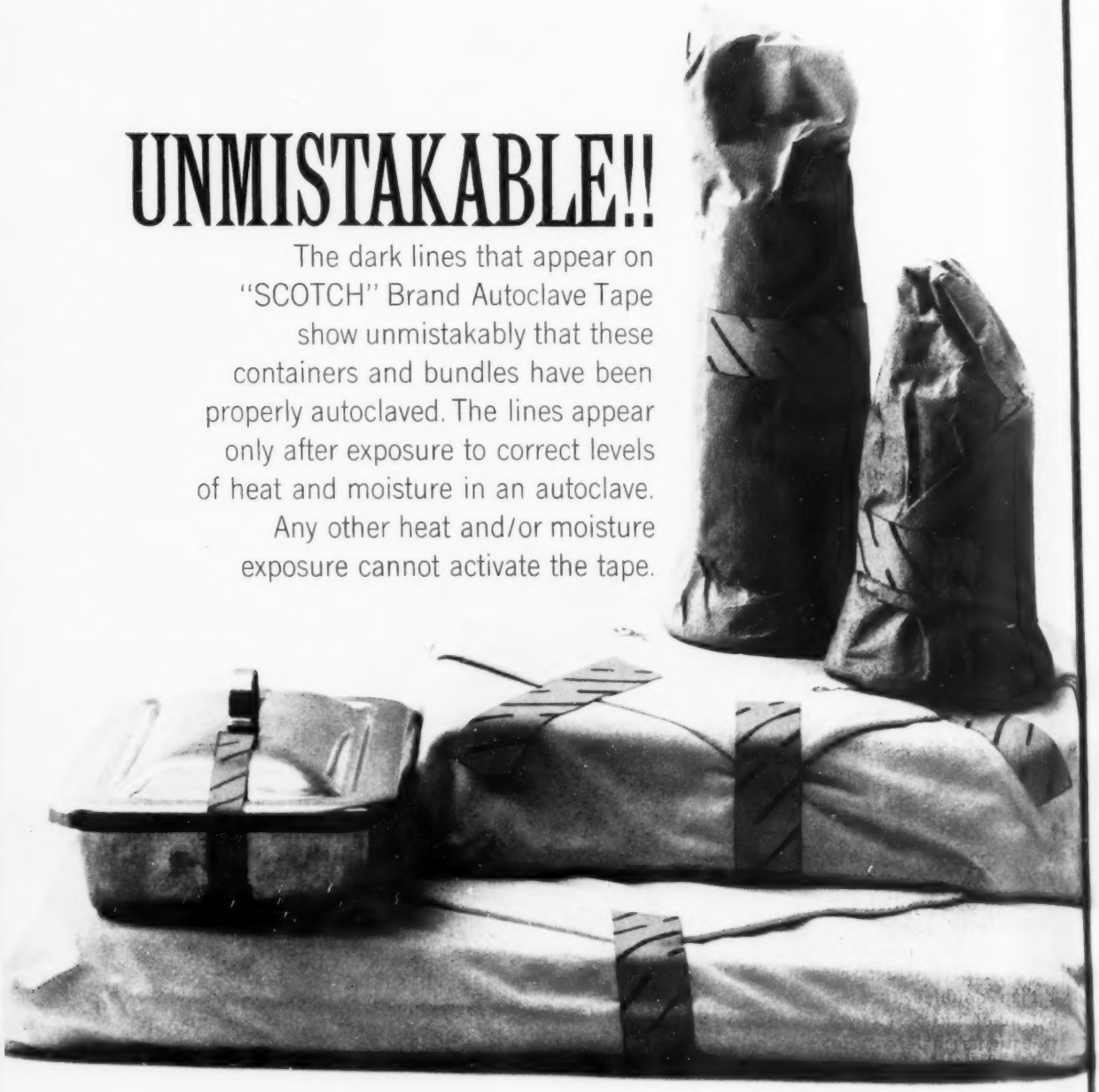

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*Bogash, R. C.; DeLa Chapelle, N.; Sowinski, R., and Downes, D.: Disposable Type Vials for Adding Medications to Large Volume Parenterals, Am. J. Hosp. Pharm. *17*:104 (Feb.) 1960.

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